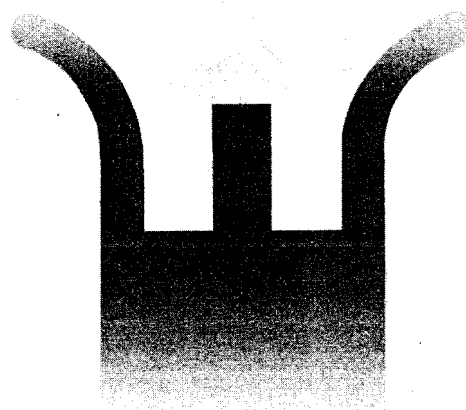


DEPARTMENT OF THE ARMY PAMPHLET NO. 23-2

MHI  
Copy 1

3/18/55

# HITS COUNT



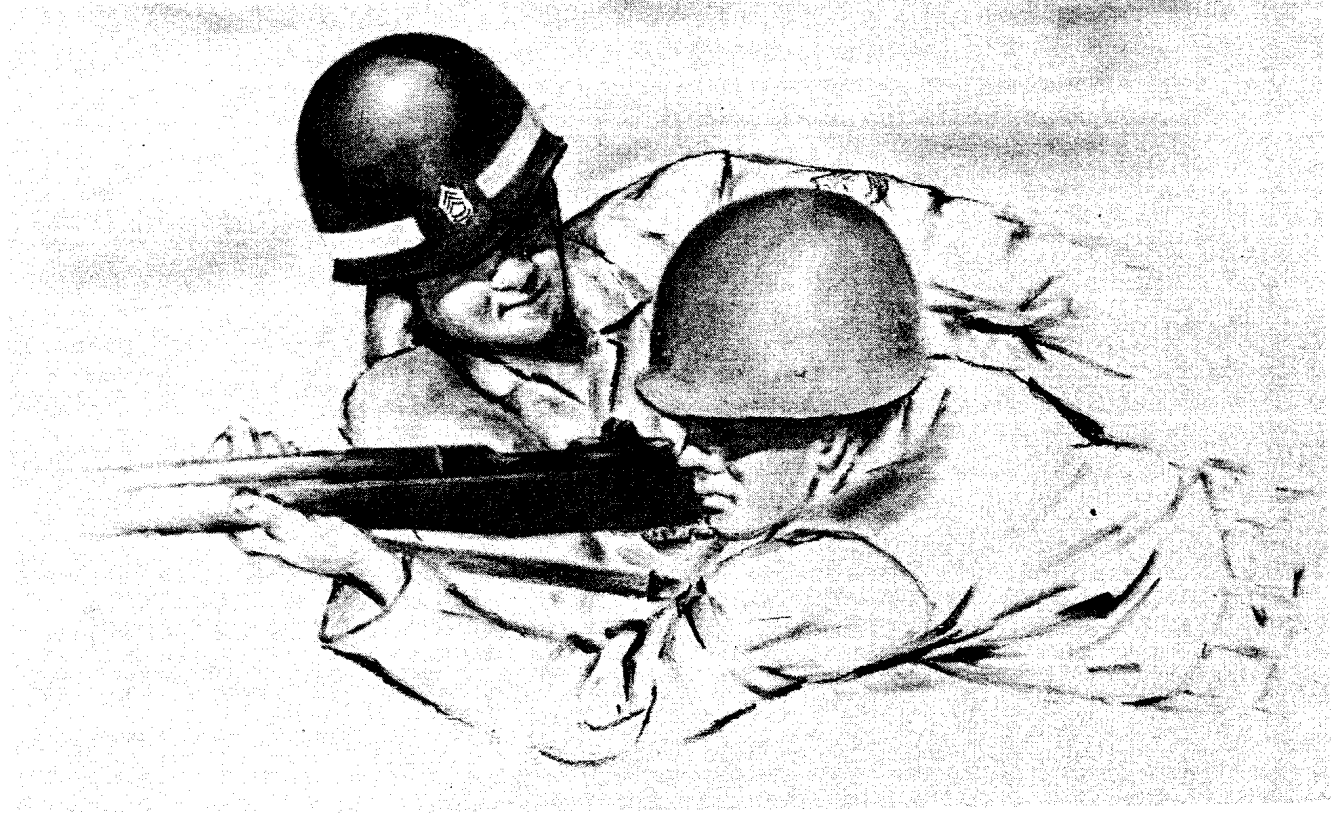
DEPARTMENT OF THE ARMY  
WASHINGTON 25, D. C.

## THE AMERICAN TRADITION

Americans are born to the tradition of excellence in rifle marksmanship. Since the birth of this Nation, the rifle, more than any other weapon, has symbolized the conquest of the American wilderness and the fight for freedom. In the skilled hands of the pioneer, the rifle was a companion that protected and provided him with food. In the hands of the free soldier, it was a weapon that won and preserved our democratic way of life. In periods of peace, it brought untold hours of healthful recreation to millions of sportsmen.

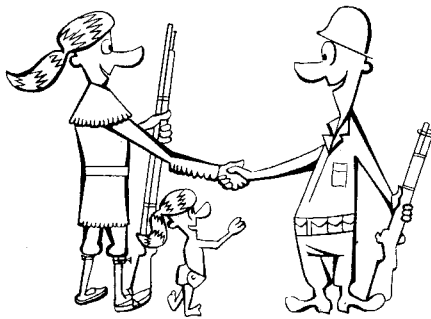
Today, this great tradition lies in the hands of our sportsmen and soldiers. Rifle marksmanship is still a prime source of enjoyment to those who respond to its exacting demands for strength and skill, for a keen eye and steady hand, and who thrill to its everlasting challenge on the range and the hunt. It is just as important to our Army today as it was at Saratoga and Yorktown, and the soldier must be trained to be as deadly a marksman as his predecessor, who cut his teeth on one cardinal rule—that only hits count.

*Brig. Gen. Carl F. Fritzsche*



**HITS COUNT**

	Page
INTRODUCTION.....	i
CHAPTER 1. Instructing and coaching psychology.....	1
2. Instructing and coaching technique.....	5
3. Holding.....	9
4. Positions.....	16
5. Aiming.....	26
6. Trigger squeeze.....	35
7. Zeroing.....	44
8. Sustained fire.....	55
9. Conclusions.....	64

**INTRODUCTION**

This is a book on rifle marksmanship instruction, written especially for the instructor and coach. It presents the techniques of good marksmanship training—many of which you have already learned and practiced—in one convenient package and in a manner that you can use in your own classes. It tells you how to teach rifle marksmanship correctly, simply, and in the most effective way the Infantry has been able to devise. It also tells you *why* we teach marksmanship the way we do. This book can also help the ambitious beginner who is willing to spend some of his spare time mastering the principles that will make his dry and wet practice pay off faster in *hits that count*.

Of all the weapons in an Infantry division, approximately 80 percent are rifles and carbines. In the final analysis, the individual who is used to dislodge an enemy in this age of total warfare is still the rifleman. World War II and Korea

have proved that the success or failure of the rifle squad or platoon to take an objective depends on the state of training of the riflemen in those units.

A squad or platoon of inadequate, half-trained riflemen—although equipped with the best rifle in the world—cannot be depended on to accomplish its mission. Our basic need is for riflemen so well trained that they can *hit* their targets under the most adverse battle conditions. A half-trained rifleman lacks confidence and produces one of two types of soldier in combat: one who fails to fire his weapon, or one who fires ineffectively in the general direction of the enemy. The well-trained rifleman, on the other hand, is one who can shoot accurately and one who has confidence in himself. It is this latter type who gets *hits* and kills the enemy.

Today, we are faced with the probability of engaging an enemy who holds a vast numerical advantage over us and who has a knowledge of strat-



egy and tactics equal to our own. Our only chance of survival in such a war will be in the *quality* of our weapons and men. We must have superior firepower to win, and superior firepower depends directly on the men who use the weapons. This is a challenge to all marksmanship instructors that they must not forget.

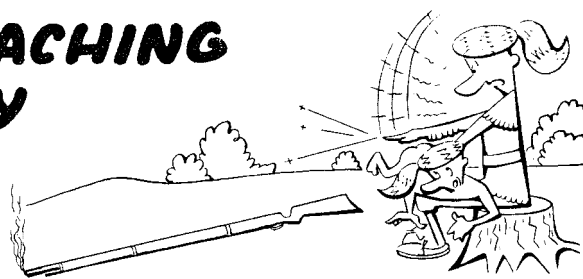
It is you, the coach or instructor, who must make expert riflemen out of raw recruits. Before you tackle this job, be sure that you can shoot as well as you expect your trainees to shoot—and expect only the best from them. Be patient with their errors. Be genuinely anxious to do your job well and you will be justified in taking pride in the excellent riflemen you will produce.

Above all, don't let the pushbutton warfare stories dampen your belief in the Nation's need for the rifle and the men to shoot it well. Although some overenthusiastic followers of scientific combat development have pictured the foot soldier's role in future wars as that of an open-mouthed bystander who will move in the wake of mighty air armadas to police up brass, and ride herd on a few stunned survivors; we can't see it that way.

Instead of the rifleman being the "forgotten man" of the next war he will, as usual, be among the first to be remembered—and the last to hang his weapon in the rack after the war is won.

# CHAPTER 1

## INSTRUCTING & COACHING PSYCHOLOGY



Stated flatly and coldly, your job is to turn recruits into soldiers who can shoot and kill an enemy with a rifle. During the course of your instruction you will want your men to make good qualifying scores on the firing range, shooting at paper targets. You will want them to be the heroes of all competition shoots. This is a good attitude, not because it inflates your ego and theirs, but because it proves that you are developing rifleman who can get *hits that count* when they face an enemy.

When you have finished with your men, they may be sent at once to face an enemy who is will-

ing to expend a fantastic number of men in a mass attack to win one battle. Whether this type of enemy gets his courage to "die to win" from fatalism or the byproducts of yellow poppies, your riflemen must be able to stop them. To do this, they must kill 10 to 20 times their own number *just to even the score!*

You have good material for producing excellent riflemen. Almost all American men like firearms. They would like to be good shots. The Armed Forces will always give their men the finest combat rifles that can be made. You must bring the two together—the men and the rifles—

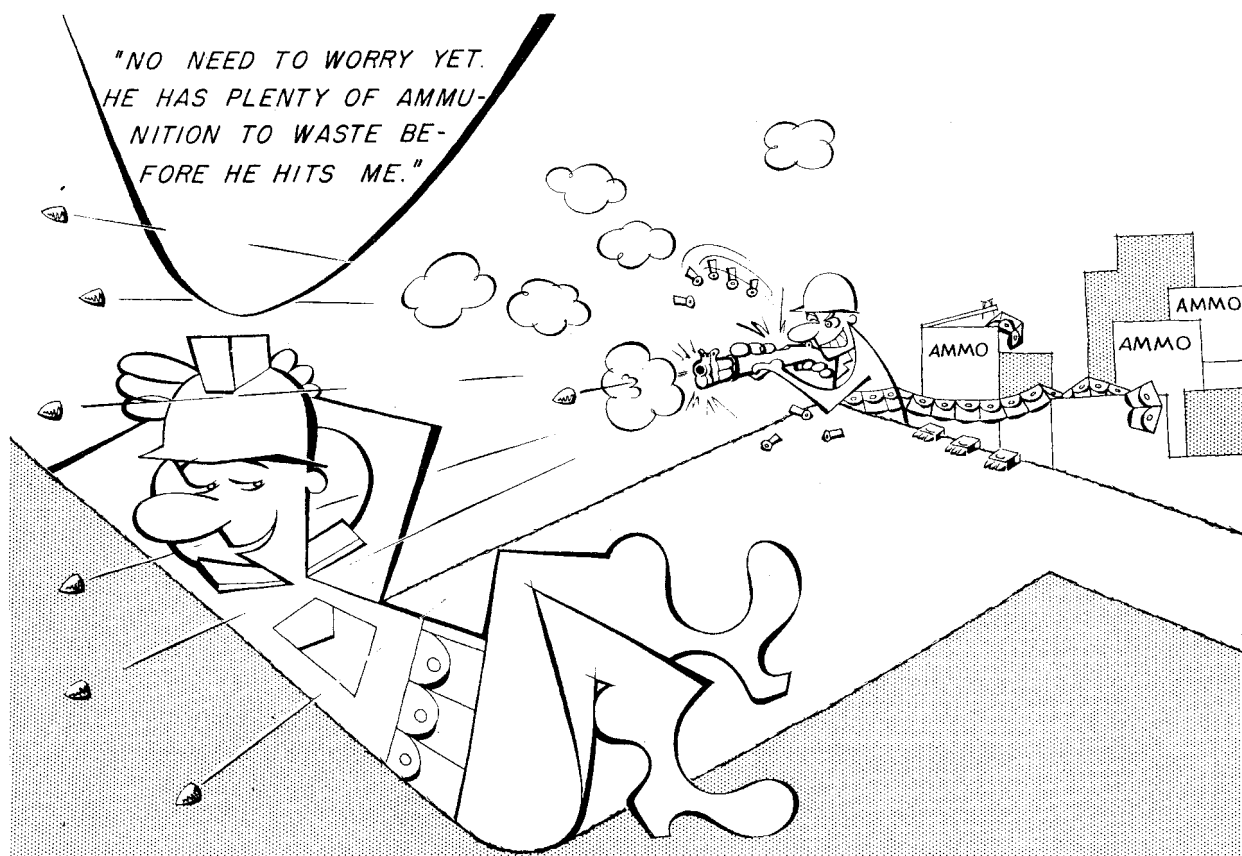


Figure 1.

and mold them into an effective and deadly weapon.

Any man with average intelligence and physical strength can learn to shoot a rifle well. It is up to you to see that each trainee reaches this goal. It will not always be an easy job, mainly because every man presents a different training problem to you.

Individual temperaments are as different as individual fingerprints. A certain type of constructive criticism will encourage one man, but put another's back up. You must learn to judge your men and know what their reaction will be to your teaching methods. While you can never cater to moods and whimsies, you must always recognize and allow for differences in individuals.

If you teach in a manner that says, "Soldier, let me give you a little help with your shooting," you will have found probably the best approach for dealing with your men. Any other approach may produce a little or a lot of resistance in the men you are trying to help.

There are three requirements for a good rifle marksmanship instructor or coach. He must have an excellent knowledge of his job, which means that he should be a highly qualified rifleman. He must have a great desire to share his knowledge with others; he will want every recruit he trains to become at least as good a shot as he. Finally, he must be completely sold on the importance of good rifle marksmanship and be able to pass that feeling on to his pupils.

To keep up enthusiasm requires patience. Once you have established what you consider the best method of instruction and after you have hit on a way of saying a thing that makes it clear to your men, stick to it. You should always try to improve your methods, but don't change them simply because you are getting bored. Remember, what may be dull routine to you, sounds fresh and interesting to each new group of riflemen.

The experience you gained in learning to become an expert rifleman is one of your greatest assets in teaching. It helps you to determine quickly and surely the cause of errors made by your men. Your experience will keep you from making many technical errors in instructing, but when you do make one, correct it as soon as you realize you have made it. Emphasize your correction so your men, as well as yourself, will learn something from it. Incorrect information in

rifle instruction can be disastrous to your country, your family, and you.

Don't underestimate the men you instruct. When you tell a man he is not hitting the bull because he is jerking the trigger, be sure you are right. The man may know better than you whether he is jerking the trigger and the cause may be something entirely different—a loose sight, an incorrect zero, or a poor position.

To sum up, a good instructor or coach is made up of about equal parts of knowledge and human understanding, shooting ability, tact, and helpfulness. Once you make your men realize that you are anxious to help them and that you have enough know-how to help them, they will cooperate with you and even seek you out with their problems. Their eagerness alone will, in many cases, insure that you reach your goal—100 percent COMBAT QUALIFIED riflemen.

Here are some things you must know and do to be a good instructor or coach:

Plan your classes ahead of time; get your thoughts and materials together. You cannot present your instruction in an orderly sequence if you have not studied it out beforehand. You cannot hold the interest of your men if you have to stop your instruction while you look for a chart, send for a blackboard, or try to manufacture a substitute for a piece of chalk you forgot to bring along.

Don't try to cover too much ground in a single instruction period. Allow enough time for questions from your class. They can teach themselves a lot by taking part in a question and answer discussion.

It is considered bad psychology to chew out a man in front of others, but when you are working with a group it is impractical to leave it while you take a single individual behind the latrine to squawk at him. However, corrections given in a tone of voice that says, "I am telling you this because I know it will help you and I know you want me to," will not embarrass the man or hurt his feelings.

There is an old saying that goes—

If the learner has not learned,  
The teacher has not taught.

This, of course, is not completely true, but if you change it slightly you can use it as a challenge. Make it read like this—

If the learner has not learned,  
The teacher has not *finished* teaching.

Here is the case history of an infantryman who was never able to tune in on the same wavelength with his instructor, and vice versa. However, a different approach solved the problem.

A company commander we knew was an excellent marksman and an equally fine instructor. He was extremely proud of his company's qualification record—except for the score of one individual. That score was the prize effort of one, Bo Lowe. During the 6 years of his Army career including 3 years in the company, Bo had never qualified. Many expert riflemen and coaches in the company had tackled the challenge of qualifying this man, but all had failed.

This particular year's qualification was well underway when the company commander strolled to the right of his range to visit the CO of F Company. Noting his dejected look, the captain of F Company asked for his sad story and got it. It was apparent to the CO of G Company that all of his men would qualify except Bo. The CO had given up on him.

As a final effort, the CO of G Company asked his friend for help in his dilemma. His friend from F Company was somewhat reluctant, at first, but realizing the challenge, decided to take a crack at Bo.

A short talk with Bo disclosed the man was a farmboy with a third-grade education and a dim idea of what this marksmanship training was all about. Although the target numbers were painted alternately black and white, this lad would shoot at targets *two* points away on each side of his.

The captain's first move was to call the pits and have a 10-inch square of black pasters stuck in the upper right corner of Bo's target. Since it was the only such target on the range, the hits, if any, would be Bo's.

While checking the man's knowledge of the correct sight picture, he found that Bo did not know and could not describe what he saw. Relying on the lad's background, Captain, Company F, decided to reduce sight picture definition to the lowest possible denominator.

"Soldier, this rear sight is just like a little round window, isn't it?"

"Shore is, Capt'n."

"Now then, when you want to look outside through a window to see everything possible, you

get right close to it and look through the middle, don't you?"

"Shore do, sir."

"This thing up here they call the front sight looks like a fence post a long ways off, doesn't it?"

"Yep, that's right, sir," replied the grinning soldier.

"That bull's-eye could be a round, black pumpkin, couldn't it?"

"Why, shore, sir."

"Well, then," began the captain, his plan of attack now well formed, "here is what I want you to do. Look through the middle of this little window, put the fence post in the middle of it and then set that pumpkin on the fence post. When you have done that, start easing back on the trigger here, real careful like, so you don't shake the pumpkin off the post. Keep this up until the gun goes off . . . and soldier, shoot at that target with the black pasters on it—the only one on the whole line out there. Now, start firing."

Bo fired 5 or 6 shots before the captain had to return to his own outfit. The hits weren't good, but better than before, and all on Bo's target.

The pit details were putting away the targets and the firing lines were policing brass when Captain, Company G, came striding across the range to his friend.

"Hey, what the devil did you do to my prize bolo?"

"Why? What happened?"

"What happened? For the first time in his Army career Bo Lowe qualified."

No matter how much you know about marksmanship, there may come along one soldier like Bo who will make you play all your cards and still beat you. That is the time to form new combinations and come up with another solution—if you are a good coach.

#### SHARPSHOOTERS IN THE HYDROGEN AGE

Increased fire of opposing armies and new weapons have done one thing to the infantryman, and to all other ground troops. It has forced wider dispersion, and wider dispersion demands better training of the individual soldier. It has made it more necessary than ever that he be so certain of his ability to take care of himself with his personal weapons that he will not lose his nerve because he is not touching shoulders with men on either side of him.

Gen. Jacob L. Devers

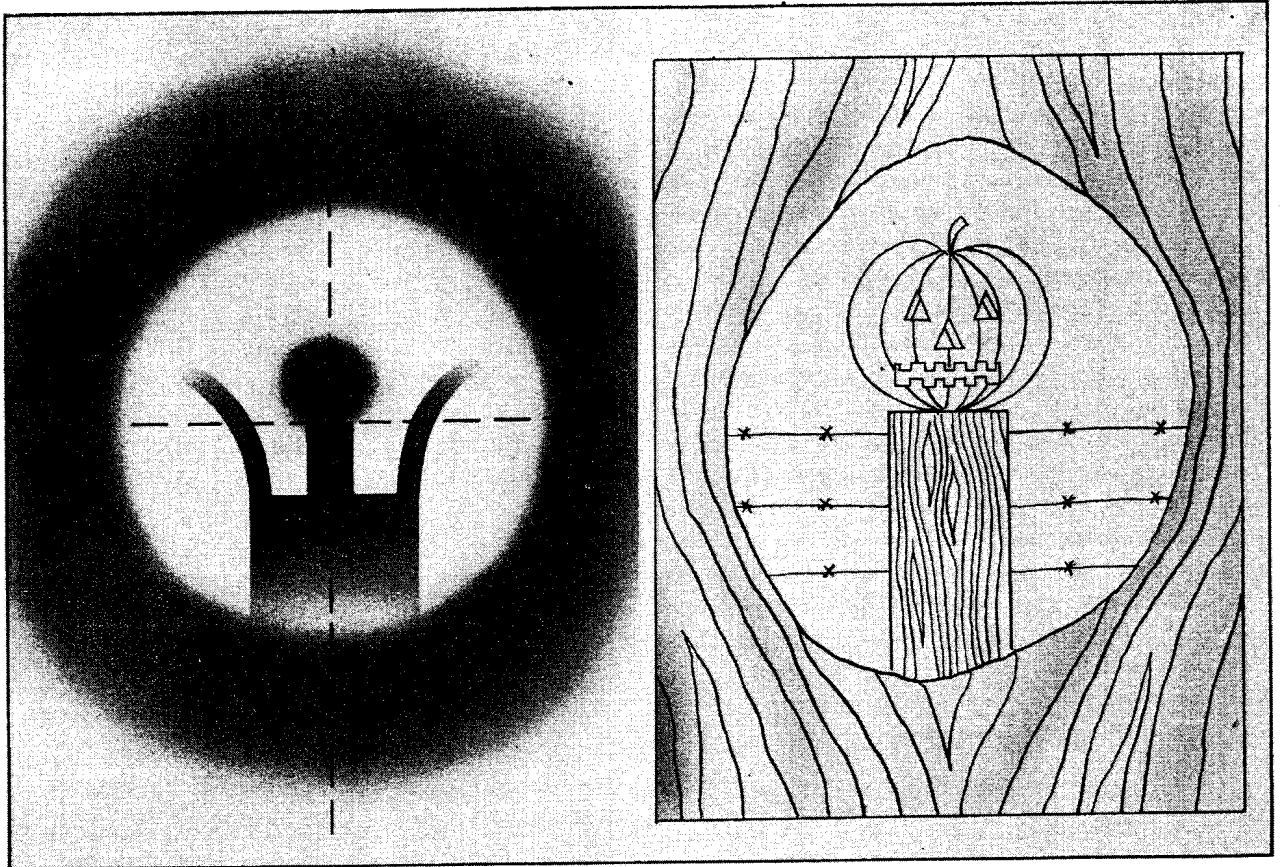
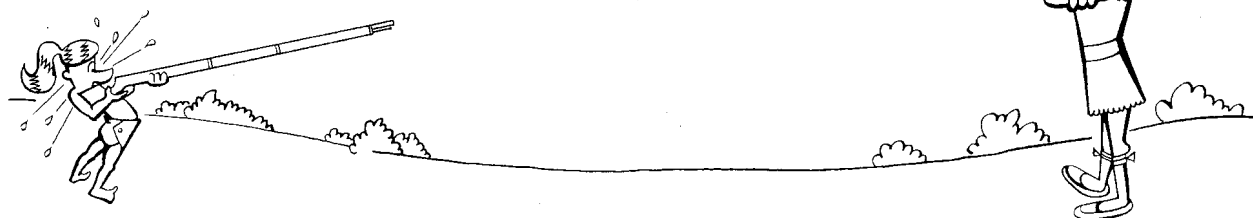


Figure 2.

## CHAPTER 2

# INSTRUCTING & COACHING TECHNIQUE



Coaches, as well as instructors, should be expert riflemen. Expert coaching will not always be available for this purpose so the coach and pupil method must be used. This method is not as desirable or as efficient as using our best shots as coaches because the excellent knowledge of these expert riflemen will help produce a better quality of riflemen for our squads. A careful study of this pamphlet by the novice coach will reveal the fine points of shooting that the experts acquire through experience only after many years of shooting.

The Army recently gave the system of using expert coaches a trial at a west coast training center. The experts used as coaches fooled everybody by not committing hara-kiri or even going over the hill. Instead, they soon developed a rivalry among themselves to see who could qualify the most men. Once the system got rolling, there were so few bolos that the coaches changed the competition to see who could turn out the most experts and sharpshooters.

Good shooting, then, is a matter of good instruction; and to know what instructions to give, you must watch the shooter—not the target. The firer's actions are quickly completed and if you don't observe them, you can't critique them. The bullet holes in the target are facts. They tell their story after your man has fired. Watch the shooter's eyes to see if he is winking and flinching; watch his back to see if he is breathing correctly; watch his grip and posture to see if he is holding his piece easily and has a firmly balanced body position.

Before you take your men to the known-distance firing range and the combat firing range, you must lead them through all the stages of basic marksmanship training: holding, body positions, sight alinement, sight picture, sighting and aiming, trig-

ger squeeze, dry firing, sight adjustment, windage, and zeroing.

You cannot skip any of these steps and expect to produce an expert rifleman. You must guide your men or lead them diplomatically through each successive phase, stressing always the *right way* to do it. Do your best to perfect your men in one step before going to the next.

You have a number of training aids you can use to help make your instructions clear, to assist your men to do the right thing the right way, and to enable you to detect and correct their errors. One of these is the M2 sighting device—a combination of metal and smoked glass that slips over the rear sight and allows the coach to see the same sight picture as the shooter. This permits him to pick up errors in sight alinement and sight picture. Don't neglect the use of this important and valuable aid on the 1,000-inch range and during instruction firing, particularly when you think your man may not be getting the right sight picture. Others are illustrated and discussed in appropriate chapters of this pamphlet. Don't limit yourself to these training aids. If you can think of additional ones, make them and use them. Continually look for different and better ways to present your instruction and encourage your men to make suggestions.

You will find that good, tight earplugs may help your men to avoid flinching; that is, when they flinch because of noise. The rubber earplugs that swimmers use are excellent sound deadeners. Cleaning patches are not very good and wads of cotton are not much better. If you have to use them, have your men wet them thoroughly and keep them wet. This helps to cut out noise. Deadening the sound of rifle fire not only reduces flinching, it helps the men concentrate better.





*Figure 3. Coach and pupil using M2 sighting device.*

If you think this is not a good practice, that men must be trained the hard way not to be gun shy, think again. A bird dog must be accustomed to the shotgun's blast before he goes on the hunting field so he will hold a point without quivering a dewlap when his master lets go with both barrels. But the Army rifleman must be trained to hold his point (sight picture) on the practice range under the most advantageous conditions possible. Then, when he goes into combat, he is able to shoot correctly, automatically, in spite of battlefield noise, confusion, and tension that cannot be duplicated anywhere else. If an infantryman flinches in combat, it will not be because of the comparatively insignificant pop of his rifle.

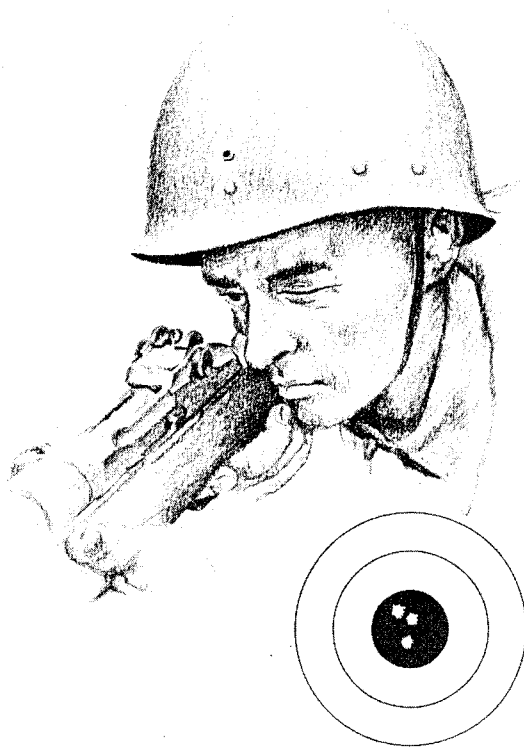
From the first day you begin instructing your men they will begin to form their shooting habits—habits they will cling to throughout the course

and take with them into combat. You must be sure that the shooting habits they form are good ones.

See that your men have plenty of time to practice what you teach them. The eager ones in your group will quickly grasp the importance of dry shooting and will snap in at every opportunity. These men will always be among the highest qualifiers in the group. Others in your class will need encouragement. Urge them to hold evening dry shooting sessions. If you are willing to be on hand and help, you will be surprised at the response you get. Draw on your ingenuity to provide incentives for extra practice in all stages of training.

You do not have to be a silver-tongued orator to be a good instructor, but try to develop a clear, firm speaking voice for classroom work. Do not

# WITH EARPLUGS



# WITHOUT EARPLUGS



Figure 4. Earplugs may help your flinchers.

rush your words as if you had memorized them and want to recite them and get done as fast as possible. Speak slowly enough so your men can absorb every bit of instruction you give them.

Use plain, simple language. It will be understood by the recently graduated doctor of laws as well as by the man who had to stop his education at the seventh grade or lower.

You can keep a military bearing before your class without being stiff; you can be friendly toward your men without being too chummy. Handle your goldbrickers and other jerks firmly.

You will be tempted to put your best efforts on the best members of your class. Fight this. It is the slow learners who need your special attention. Give it to them patiently and with sincere good will.

You must remember that training does not end with firing the qualification course. Let us discuss combat targets in connection with your job. Your men may be able to put every round they fire into the bull, but if they don't know *what* to

shoot at in combat, their ability will not do them much good.

Do not be surprised that you must explain the rifle's capabilities to your men—that you have to name the suitable combat targets.

Sometimes even infantry officers seem to forget which targets are suitable for the M1. Consider this true story that a disgusted artilleryman brought back from Korea.

The fire direction center (FDC) of a certain artillery battalion got repeated calls from a rifle company for fire on a group of the enemy in front of the company position. The artillery had a priority mission and could not divert even a part of its fire except for a dire emergency. The tone of the company's calls changed swiftly from urgent to plaintive, then to frantic. The FDC got worried and decided to ask for more data.

*FDC to Company:* State exact size and location of your emergency target.

*Company to FDC:* Group of six enemy soldiers in open, 200 yards to our front!



Figure 5.

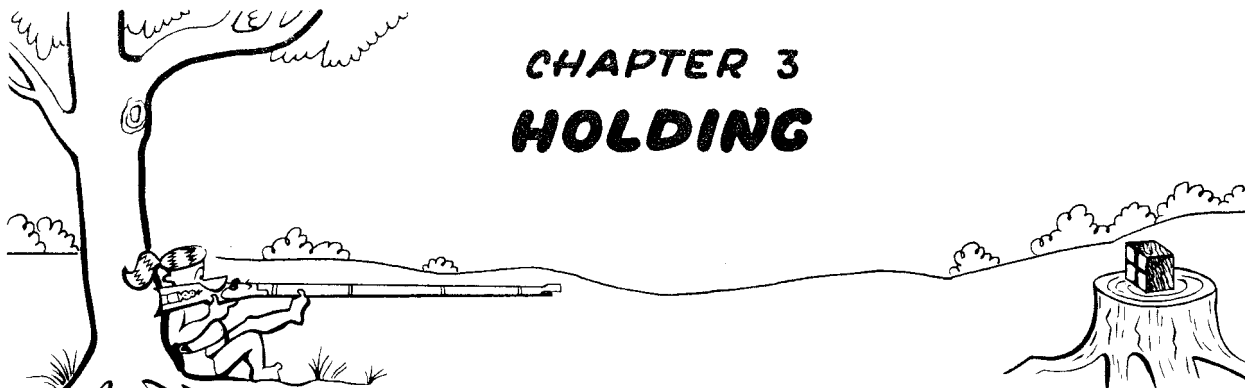
*FDC to Company:* Well, why in the hell don't you shoot 'em yourself?

Compare that example with the Polish sniper who disorganized a group of German tanks for a half-hour, delaying its progress and killing or wounding the entire crews of two tanks when they had to expose themselves to repair their vehicles.

Any live enemy soldier you see within range is a legitimate target for your rifle. If the enemy seeks cover or concealment, then rifle fire on his cover or concealment will fix him there. But area fire with a hand or shoulder weapon is as inexcusable as it is ineffectual.

#### TWO BULLETS, ONE GENERAL

At Stillwater, N. Y., one of Washington's best officers, Gen. Daniel Morgan, lay in ambush watching the right wing of the British forces as they maneuvered just beyond musket range. Noticing the British commander with his staff hovering in the background, General Morgan ordered up a certain Tim Murphy, one of his best shots. Murphy, using a rifle with one barrel superimposed upon another, fired two shots in close succession at 300 yards range. The English officer toppled from his horse, dead. Taking advantage of the disorder and confusion following this blow, General Morgan attacked and drove the demoralized British back to Saratoga where, a few days later, they were destroyed in the most decisive battle of the Revolution.



## CHAPTER 3 HOLDING

Good firing positions and good holding techniques go hand in hand, and they are “musts” for good shooting. You know what the ideal positions are and how to teach holding by the book. You also must know how to make little changes in the way the book says do it because—

**ALL M1 RIFLES**

**ARE THE SAME**

**SIZE & WEIGHT**

**BUT—ALL MEN ARE NOT.**

A short-armed man may not be able to hold his left hand against the stock ferrule swivel when

he aims; a long-fingered man may find that his fingers wrap around the barrel twice and get in the way of his line of sight. A loose-jointed man can flatten himself so well in the prone position that you have to run your hand through the ground stubble to find him, while a man whose joints are hung together with short tendons cannot get his heels on the ground in the same position.

You must help each of these men to make small changes in the standard positions so they can shoot comfortably, and vary the holding techniques so they can hold their M1's easily and steadily.

## THE SATISFACTION OF GOOD HOLDING

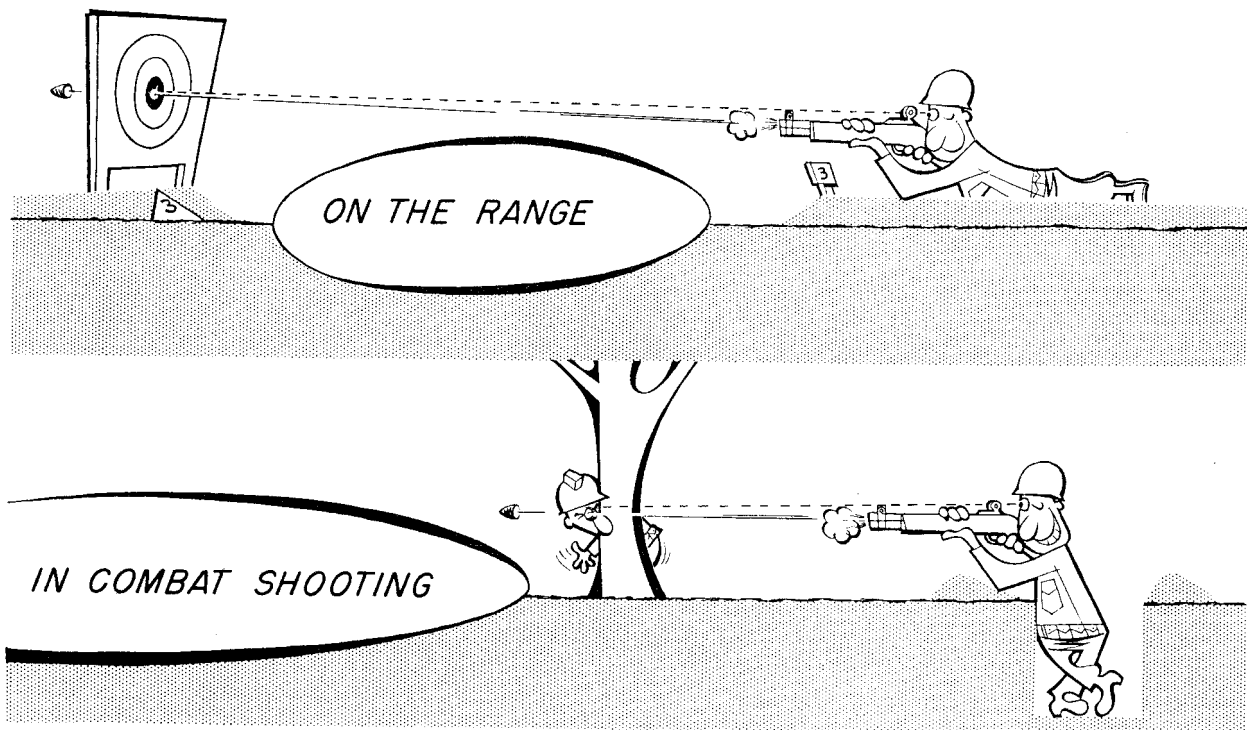


Figure 6. The satisfaction of good holding.

The rifleman's hands, arms, and the right shoulder do the same job of holding in the prone, sitting, and kneeling positions, and the posture of the head is the same in these positions. So let us consider the work of these body members (for right-handers) first.

#### THE LEFT HAND

To obtain the steadiest hold, the rifle should rest on the heel of the left hand and in the V formed by the thumb and index finger. For uniform holding, the hand is forward against the stock ferrule swivel. The wrist should be straight to give vertical bone support. Demonstrate the strength of this hold by pushing down on the rifle while your man holds it in this manner. Call to his attention the quick vertical recovery. The rifleman's fingers will tend to curl around the rifle as pressure is applied, so have him tuck them against the right side of the hand guard and out of his line of sight. Don't let him *grip* the rifle with his left hand. This adds nothing to its support and brings unnecessary muscles into play, which will create strain and additional movement (fig. 7).

Now have your man flatten his left hand with the palm up and place the rifle in the middle of the palm. Push down on the piece and have him notice the springboard effect which comes from the wrist and fingers. No steady holding here, is there?

Springboard action is important to the swim-

mer in gaining momentum for a dive, but it has no place in *steady holding* of the M1 rifle. For effective *hits*, the rifle must be held as steady as a camera in taking a slow exposure (fig. 8).

If your man has a very short arm, don't make him stretch to reach the stock ferrule swivel. Have him place some blocking object between his hand and the stock ferrule swivel to give him a shorter reach, or use tape or some other form of marker on the hand guard so that he can always take the same, most comfortable hold. The best solution is to wrap tape or string around the sling, stock, and handguard at the place where the hand of the short-armed man reaches. This will not harm the rifle and will give the shooter the same holding advantages that he would obtain if his arm were able to reach the stock ferrule swivel (fig. 9).

#### THE LEFT ELBOW

A well-constructed building is set on a firm foundation and erected around a strong, supporting skeleton. The rifle, also, must have a firm foundation and a strong skeleton to rest on. In the prone position, the foundation is good old Mother Earth; in the kneeling and sitting positions, it is the rifleman's knee and shin respectively which, in turn, use Mother Earth for their foundation. The skeleton support is provided by the rifleman's own bony system. The most important bones are the two in the left forearm and the most important joint is the left elbow.



Figure 7. Left hand at stock ferrule swivel, wrist straight, rifle in V.

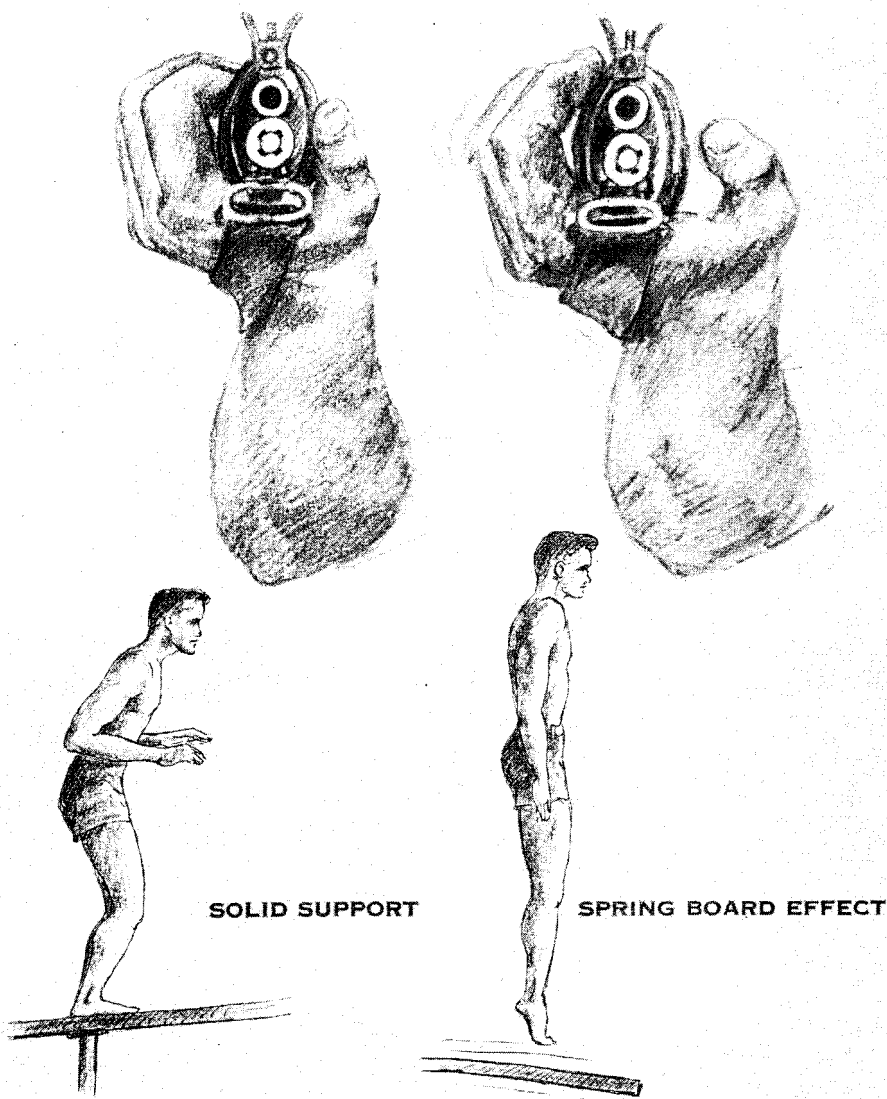
**CORRECT HOLDING****INCORRECT HOLDING**

Figure 8.

To erect the bones of the forearm so they can best support the rifle, the rifleman must place his elbow directly under the piece. When the elbow is under the rifle, the forearm will not lean to the right or left and put a tiring strain on the muscles (fig. 10). The muscles should be considered only as guy wires to hold the bones, without effort, where the rifleman places them. The rifle sling is another guy wire that helps to hold the weapon without muscular strain. The sling rates a separate paragraph further along in this chapter.

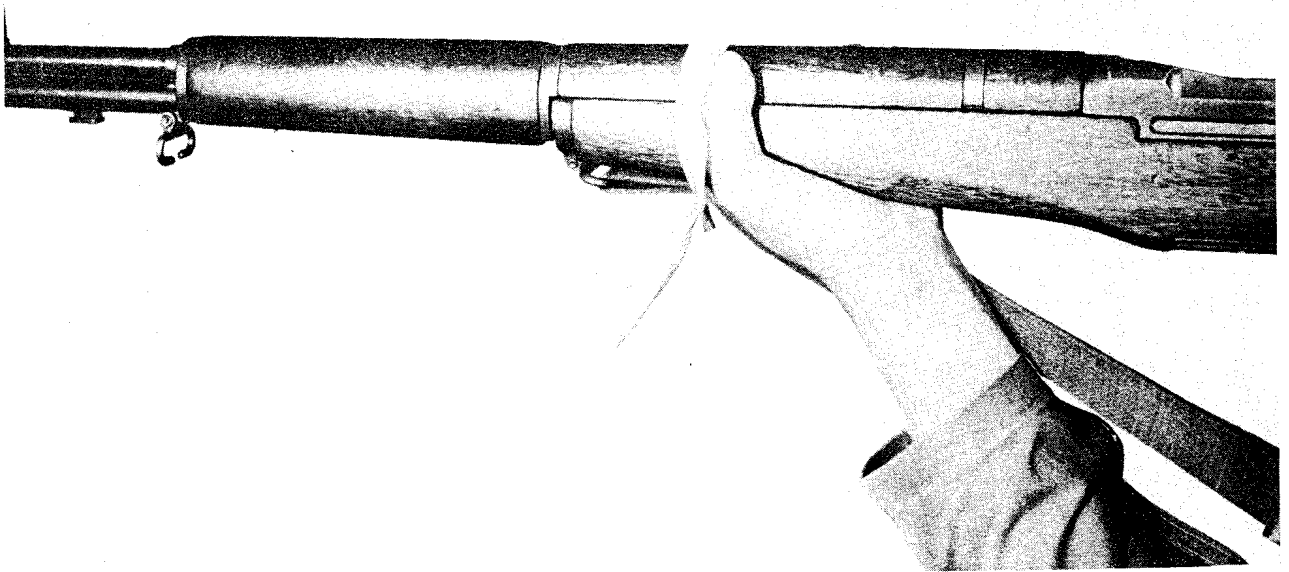
On the first couple of tries, some men claim

that it is harder to place the left elbow directly under the rifle and keep it there than it would be to put their foot in their mouth and trim their toenails with their teeth. You will have to keep after them. When you see a man with his elbow out of place, swoop down on him like a rooster on a June bug and peck at him until he gets it right.

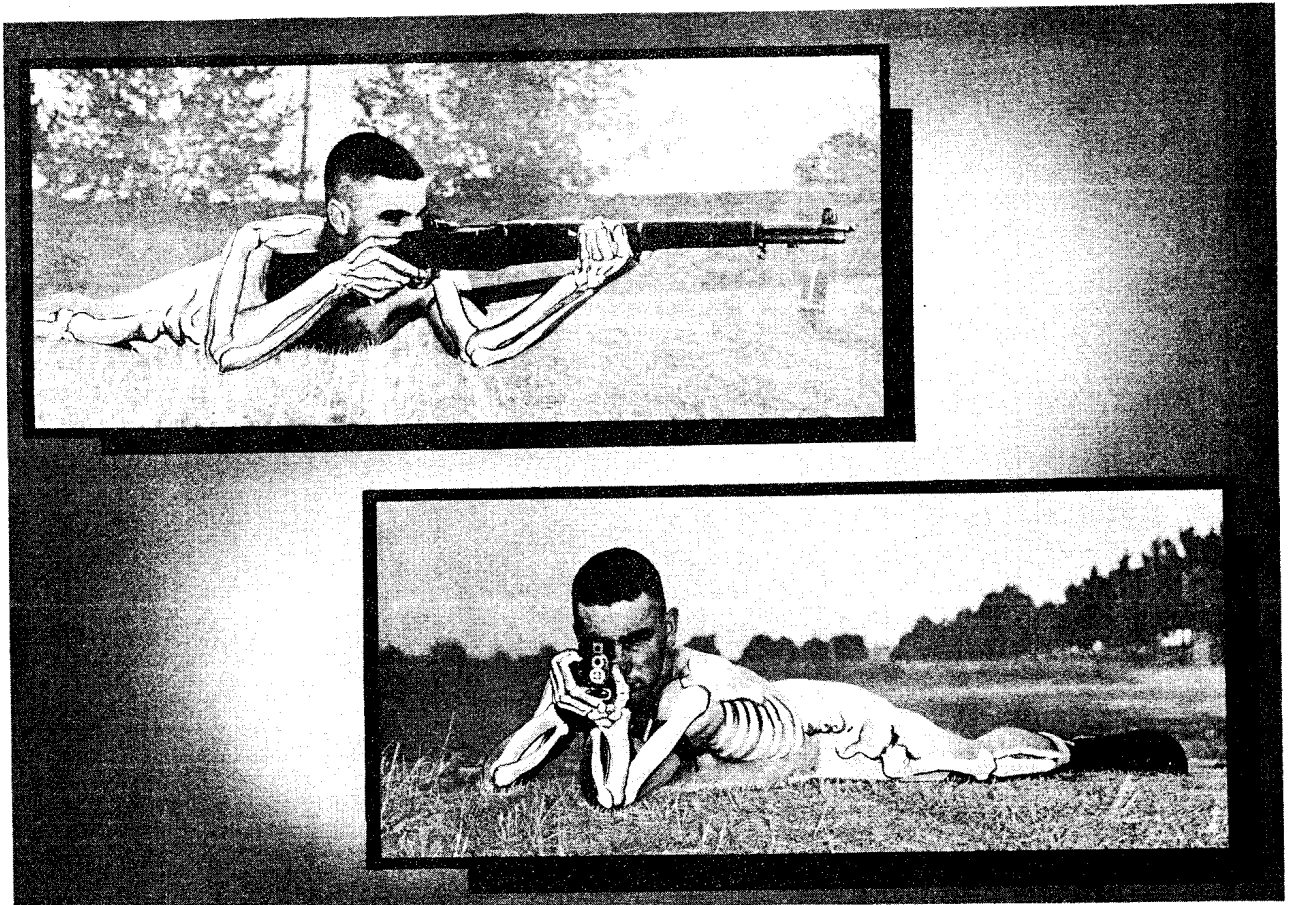
**RIGHT SHOULDER**

The right shoulder is another important part of the body when it comes to holding a rifle. Just inside the shoulder joint, below the collar bone, is a hollow spot padded with muscle where the





*Figure 9.*



*Figure 10.*

rifle butt fits like a baseball in a catcher's mitt. When the butt is nestled firmly against this muscle pad, it not only helps to hold the rifle steady but helps the body to absorb the shock of recoil.

Rifle recoil has never been known to tear a man's arm off, but some men dread it for a long time after they have begun to shoot. Show these men that they can transform the shock of recoil into an almost unnoticeable push by pressing the rifle butt into this muscle pad and letting the entire torso act as a shock absorber. The tension of the sling provides the pressure necessary to seat the rifle against the shoulder.

#### RIGHT HAND

The right hand does not help to support the rifle in the sense that it bears any of the weight. It does grip the small of the stock firmly enough to help *steady* the rifle. Figure 14 shows a good right-hand grasp. The hands in the photos are average size. Bigger or smaller hands will not look *exactly* the same when they grip the stock. Help each man to position his grip so he can get a good trigger finger contact and a good thumb-cheek spot weld.

#### TRIGGER FINGER CONTACT

The rifle trigger is operated best with a gentle, direct pull. The pull is applied as a squeeze, the trigger finger making contact with the trigger somewhere between the finger tip and the second joint, depending on finger length. Show your men that if the trigger is not squeezed straight back it will cause the working parts to bind, making the pull harder and uncertain. Caution them that squeezing the stock does not move the trigger, but *does* waste muscular effort.

#### THE HEAD: SPOT WELD

The final step in holding a rifle is to get the head in a comfortable position with the right eye back of and close to the rear sight. The rifleman does this by relaxing his neck muscles and letting his head fall forward so that his cheek rests against the stock and his right thumb. He may have to shift his thumb about a bit and move his cheek a little until he finds the exact spot where thumb and cheek must touch to put his right eye in line with the peep. This is the spot weld that he must achieve each time he fires. The purpose of the spot weld may be made clearer by using an example familiar to most boys.

At some time or other, every American kid has found that his small weekly allowance was not equal to the combined demands of the ice cream

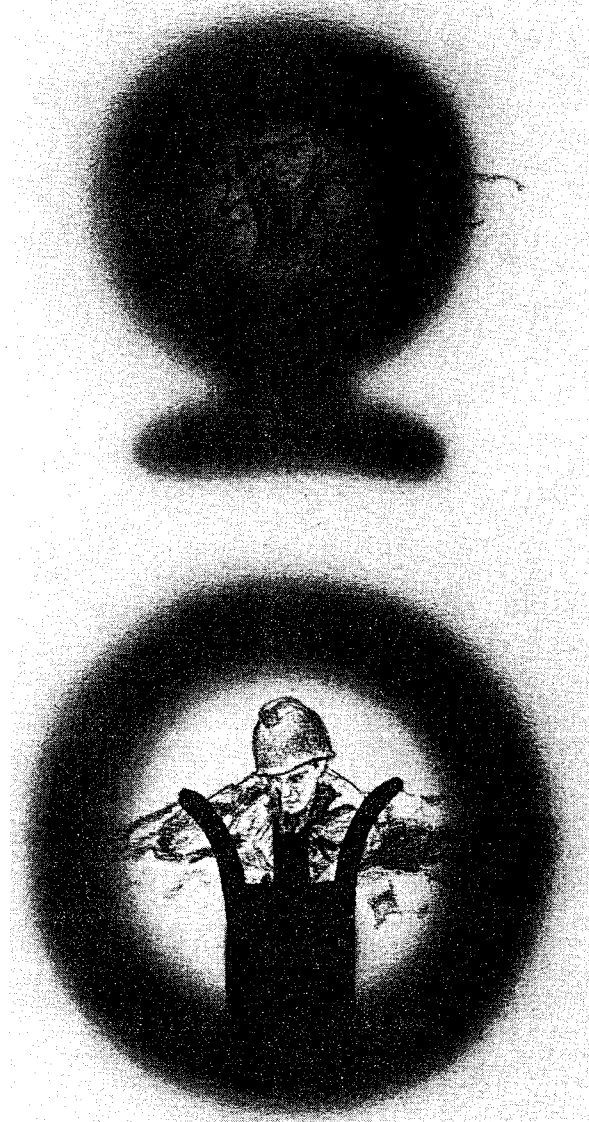
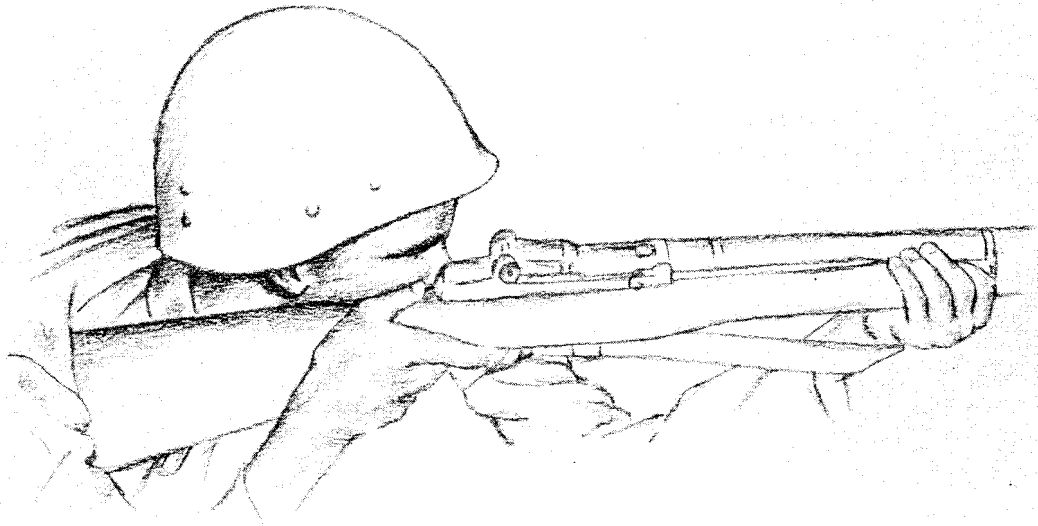
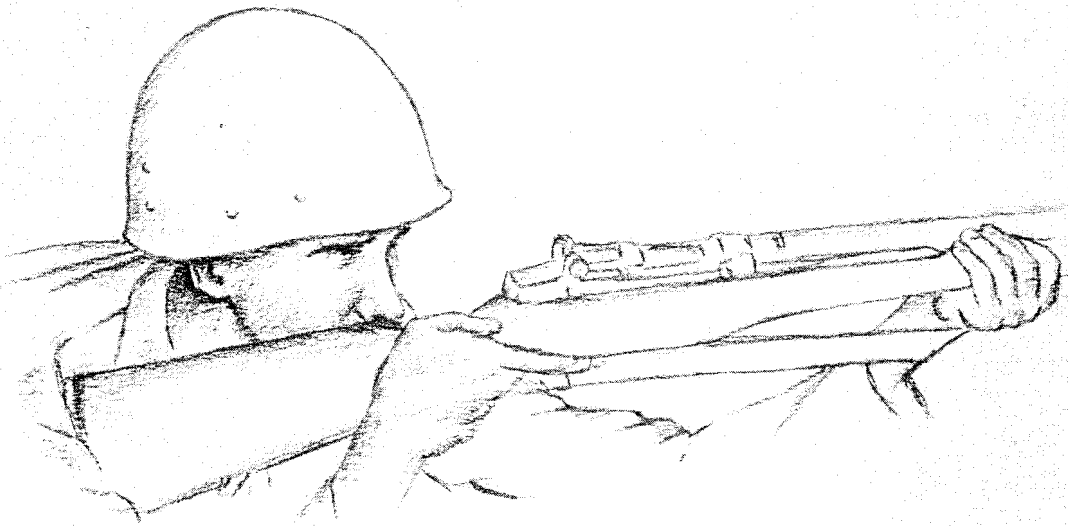


Figure 11. Keep your eye close to the peep.

vender, the sodajerk, and the lady at the movie ticket window. So when Saturday afternoon rolled around, when the local ball team was going to slug it out with its deadliest rivals from a nearby town, Junior did not have the price of a peanut. Flinthearted pop was trying to teach Junior, the hard way, how to handle money. So Junior solved the problem by finding a very nice knothole in the fence around the ball diamond.



**CORRECT SPOT WELD**



**INCORRECT SPOT WELD**

*Figure 12.*

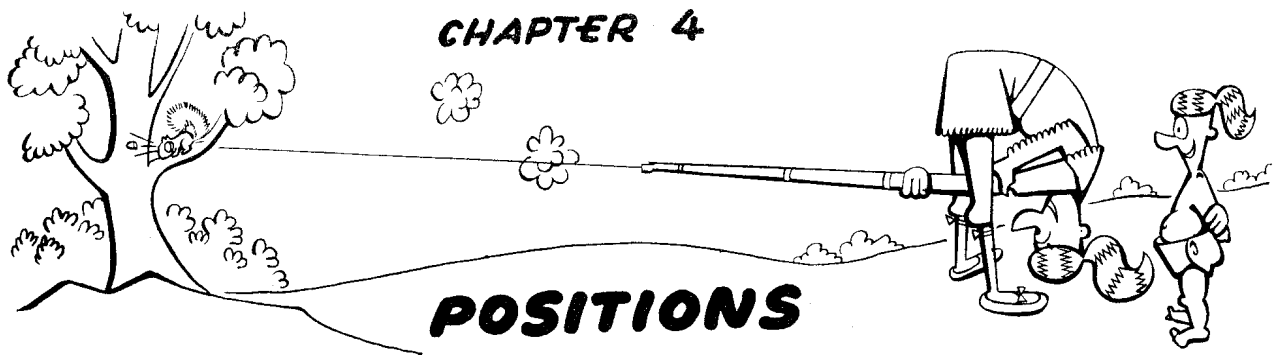
The closer to the knothole Junior got his eye, the more of the field he could see. After considerable squirming around, Junior found that by placing his right hand flat against the fence right by the knothole and by pressing his cheek against his hand, he could get his eye very close to the hole. He could not only watch the pitcher wind up and the batter slam the ball, he could also see whether the guy out in left field was on his toes.

From then on, Junior might cross and uncross his feet to relieve his cramped muscles or shove his behind out in different directions, but he held that spot weld of cheek-to-hand and did not miss a play.

In taking a sight picture with a rifle, your men want to get a good look at the top of the front

sight blade and the target. It is important for the eye to be *always* the same distance from the peep in a particular position. By keeping their eye close to the peep and holding it there in the same place; that is, by using a spot weld, they will always get the *same look* at the front sight and the target.

In taking the spot weld and getting the sight picture, the rifleman should place his head so that both eyes are toward the target and about the same distance from it. This keeps the man from having to peer over the bridge of his nose with one eye, which is a strain on that eye. It also places his mouth out of the line of recoil and prevents the right-hand fingernails from cutting and bruising his lips.



You know the main positions for rifle shooting. You know that they are designed to give the average rifleman a restful, relaxed posture so he can hold his piece without muscular strain and squeeze off rounds that will *hit* where he aims. Since these positions are designed for men of average physique, you cannot expect a small man or an oversize man to be comfortable in exactly the same positions; in fact, they will often suffer physical discomfort.

Many discouraged recruits have come off the prep field with the remark: "I just can't seem to get the hang of it. I really tried my damndest, but that front sight jiggled and danced like a Mexican jumping bean. Guess I'm too nervous and shaky to try to shoot."

Before you decide that a man is just a nervous child of a nervous mother and will never be much of a rifle shot, check his position. Ask him if he is perfectly comfortable and relaxed. Nine times out of ten you will find that it is not shaky nerves that are causing his low scores, but a shaky or strained position.

#### BODY ANGLE

Baseball fans know that a right-handed batter who keeps putting his foot in the bucket will usually *hit* toward third. The *hit* is pulled to the left because his body position makes it natural for him to swing to the left. If he tries to hit one to right field with his foot in the bucket, he has to punch the bat awkwardly toward that field.

In taking a firing position, a shooter, also, may place his body so that the rifle does not aim naturally at the target, but to the right or left of it. In this case, the rifleman may try to bring his weapon onto the target with his muscles, but as long as the pull is away from the target, the *hits* are likely to strike in the direction of pull.

The shooter must shift his entire body so that the rifle points naturally at the center of the tar-

get. This is essential for automatic sight alignment on recovery from a shot. One technique that may assist him is to close his eyes and relax after assuming his position. If, upon opening his eyes, he finds he is not pointing at the target, he shifts his body and repeats the process until he does.

In every firing position the body is to the left of the rifle. It faces about 30° from the line of aim in the prone position, 40° to 50° in the sitting and kneeling, and 85° to 90° in the standing position. Slight variations in angle should be allowed to fit the individual's build. Heavy clothing will cause the rifle butt to be held farther out from the right shoulder than light clothing, and this will require a slight change in body angle for all positions.

To understand more about the reasons for correct body angle, let's look at the prone position. To get your left elbow under the piece, left hand at the stock ferrule swivel, eye up close to the rear sight, and the correct trigger finger contact, the firer's body must be at some angle from the rifle (fig. 13). Why a 30° angle? The 30° angle places the weight of the body behind the rifle where it can absorb the recoil. With the body absorbing the recoil, the right arm will stay put and give a quick recovery with an almost automatic realinement of sights with the bull.

With a smaller body angle, both arms would have to be stretched uncomfortably. With a greater body angle, the push of recoil will drive the right shoulder and arm back out of position. This is particularly noticeable on sandy, slippery firing points. Before the shooter can fire another round he must get back into position and sight in again.

#### THE LOOP SLING

The sling is handy for carrying the rifle, but that is not its most important use. Its main purpose is to steady the rifle so the soldier can get better *hits* from any position, under almost all

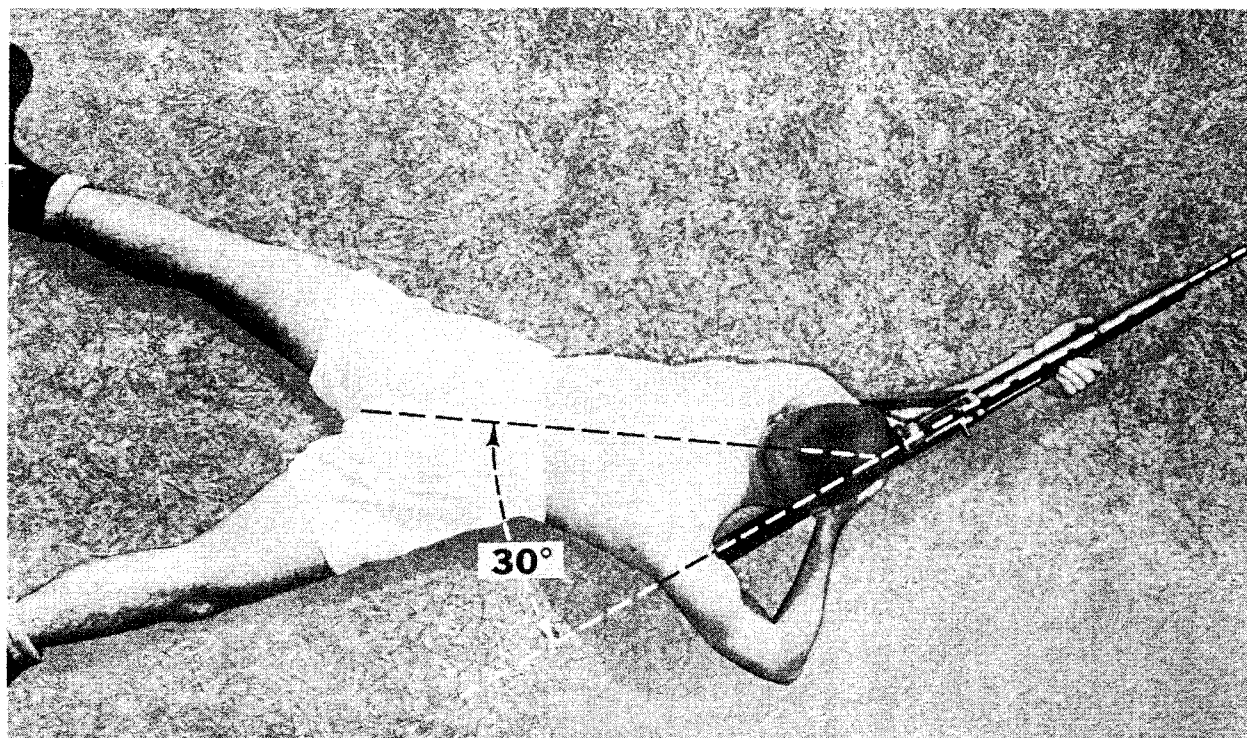


Figure 13. Body angle.

conditions. This includes, by all means, *combat* conditions.

The sloop sling is used in the prone, sitting, and kneeling positions. We will discuss these positions in the following three paragraphs, so make a quick review in your mind of the correct loop-sling adjustment. Figure 14 shows the *right* way and the wrong way to do it. Notice that the *correct* adjustment shows the loop high on the left arm, well above the bicep. If the loop is below the bicep, the sling cannot lend enough support to keep the rifle from falling forward and down. This throws the burden of support on the arm and shoulder muscles, which can't take it long. The front sight seems to become heavier the longer the muscles try to hold, and the rifle muzzle soon takes a nosedive.

The sling must be cinched up tight enough to keep the rifle in the pocket of the right shoulder.

#### PRONE POSITION

The "lying down" or prone position is the lazy man's favorite. It gives a maximum of comfort and steadiness for firing. It also gives the rifleman a low silhouette and makes him a small target when seen from the front.

Taking the prone position is not just a matter of flopping on the ground on your belly. Let's

check a few features of this position again. Get your man on the ground with his body stretched out about 30° from his line of aim. This puts his body weight behind the rifle where it can take up a part of the recoil and give an automatic sight alinement recovery after each shot is fired.

With the left hand out against the stock ferule swivel, the rifle may get a little heavy. Have your man adjust the loop sling so it will relieve the strain.

Now your man needs something to help hold up his chest. Have him move his right elbow slightly forward of his right shoulder until the upper arm is at a 45° angle from the ground. This forms a brace to hold the chest off the ground, levels the shoulders, and forms the pocket in the right shoulder for the rifle butt. The right shoulder joint should be free so the rifleman can easily reach the small of the stock with his right hand, even if he has short arms.

Now have your man rest his cheek against the stock and right thumb. Can he see through the rear sight? If not, have him shift his thumb and cheek until he can.

Finally, the man should slump forward into the sling to get the full value of its support. This completes the position except for minor adjust-





*Right*

*Wrong*



Figure 14.

ments he may need to make when he tries to line up with the bull. These are the adjustments—

First, he can use controlled breathing to check his position. He lets out all of his breath, which should put the front-sight blade just above the bull's-eye at 12 o'clock. Then he takes a deep breath, watching to see if the sight blade moves straight down through the center of the bull to some point below (fig. 15). If it does not, and if the rifle is not pointing naturally at the center of the target, the rifleman keeps his left elbow in place and, using it as a pivot, shifts his whole body in the direction that will line up his sights with the center of the bull.

If the rifleman sees he is aiming too far above or below the bull, he can raise or lower the rifle butt to correct his sight picture. If the front sight blade is very low, he may inch backward a little, keeping his elbows in place. This raises the muzzle. If the man is sighting very high, he may inch forward with the elbows in place to lower the muzzle (fig. 16).

### SITTING POSITION

Next to lying down, sitting is the most comfortable position a man can get into, so let's talk about sittin' and shootin' for a spell. The strength and steadiness of the sitting position comes from the tripod base the firer forms with his body. Like a cameraman's or surveyor's tripod, the firer's body tripod is easily adaptable to rough ground. His three points of contact with the ground, the tripod legs, are his two feet and his behind.

Here is the way to get a lot of support with little effort. Hold the knees closer together than the feet and about one handspan from the ground. Point the toes forward and inward with the ankles relaxed. This gives good vertical support. You can prove this by pressing down on the firer's knees to show him that there is no strain on the leg muscles. If the toes were pointed outward, like a dead man's, the downward pressure on the knees would strain the inner thigh muscles, and steady holding would be difficult, if not impossible.

## BREATHE TO CHECK POSITION

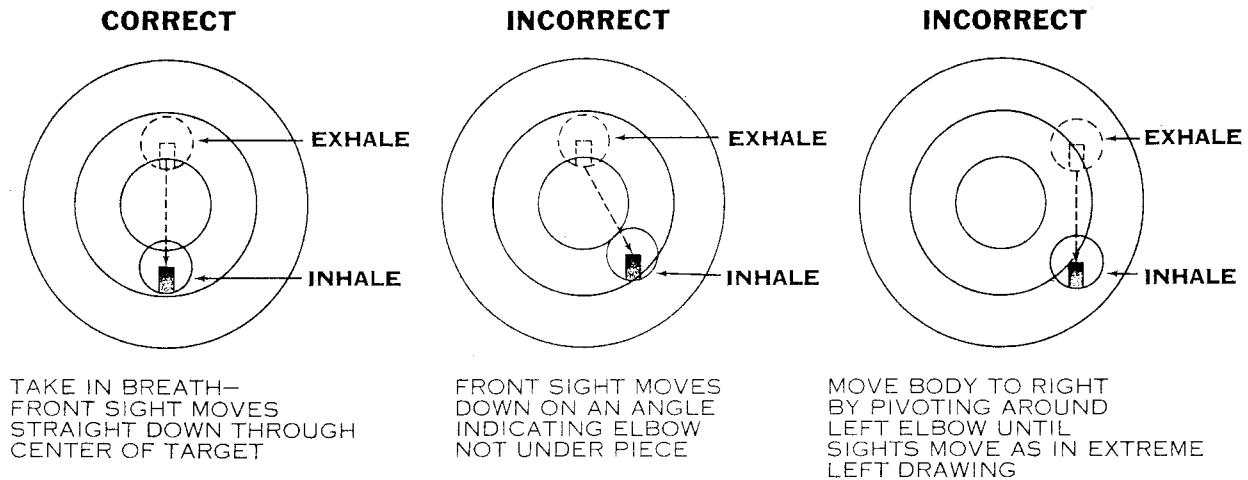


Figure 15.

The body weight must be forward and on the lower part of the buttocks. Otherwise, the firer will be pushed backward out of position when he shoots and he will have to strain his belly muscles to keep from toppling over.

To prevent his left arm from slipping off the shin when firing, the shooter places his left upper arm on top of the left shin and extending across it at a point just below the left knee. His right upper arm is blocked in front of the right knee and shin to keep it from moving back with the recoil. The right leg should be positioned to assist in this effort.

The loop sling must be tight enough to hold up the left arm and press the rifle butt back into the right shoulder. The sling must be shortened about 2 inches from what it was in the prone position because, in the sitting position, the left elbow is closer to the body. Have your men mark this sling adjustment so they can get into it quickly each time they have to fire from the sitting position. The firer relaxes into the sling and toward the target.

Be sure the firer has his *left hand* out at the stock ferrule swivel and *his left elbow under the rifle*. *Trigger contact* and the spot weld are made as in the prone position.

Digging heel holes in the ground helps the firer to keep a steadier position when he relaxes for-

ward. It keeps the heels from slipping and allows fully relaxed legs. As long as the heels and buttocks do not slip, the rifleman can support a heavy weight on his knees without effort.

An unusual body build may cause some riflemen to be unsteady and uncomfortable in the open-legged sitting position. If you find one of these fellows, you may try him out in two alternate sitting positions. These are the cross-legged and the cross-ankled positions. Determine the best position for the shooter and see that he continues firing from it. Some men will, if you let them, change positions every time they get a bad string, regardless of how many good ones they have fired from a particular position.

### KNEELING

"Ouch! My leg and ankle's killin' me!" This is a common complaint with men who try the kneeling position for the first time. They never get steady because they never get comfortable.

Here is a description of the "medium" kneeling position (see also the middle picture in fig. 19). It is suitable for average-sized men.

The firer kneels on his right knee. His left foot should be flat on the ground and pointed in a direction that is comfortable for him—not necessarily at the target. The left leg from foot to knee must not lean to right or left: it is held vertical. The back of the calf should touch the underside of the thigh.

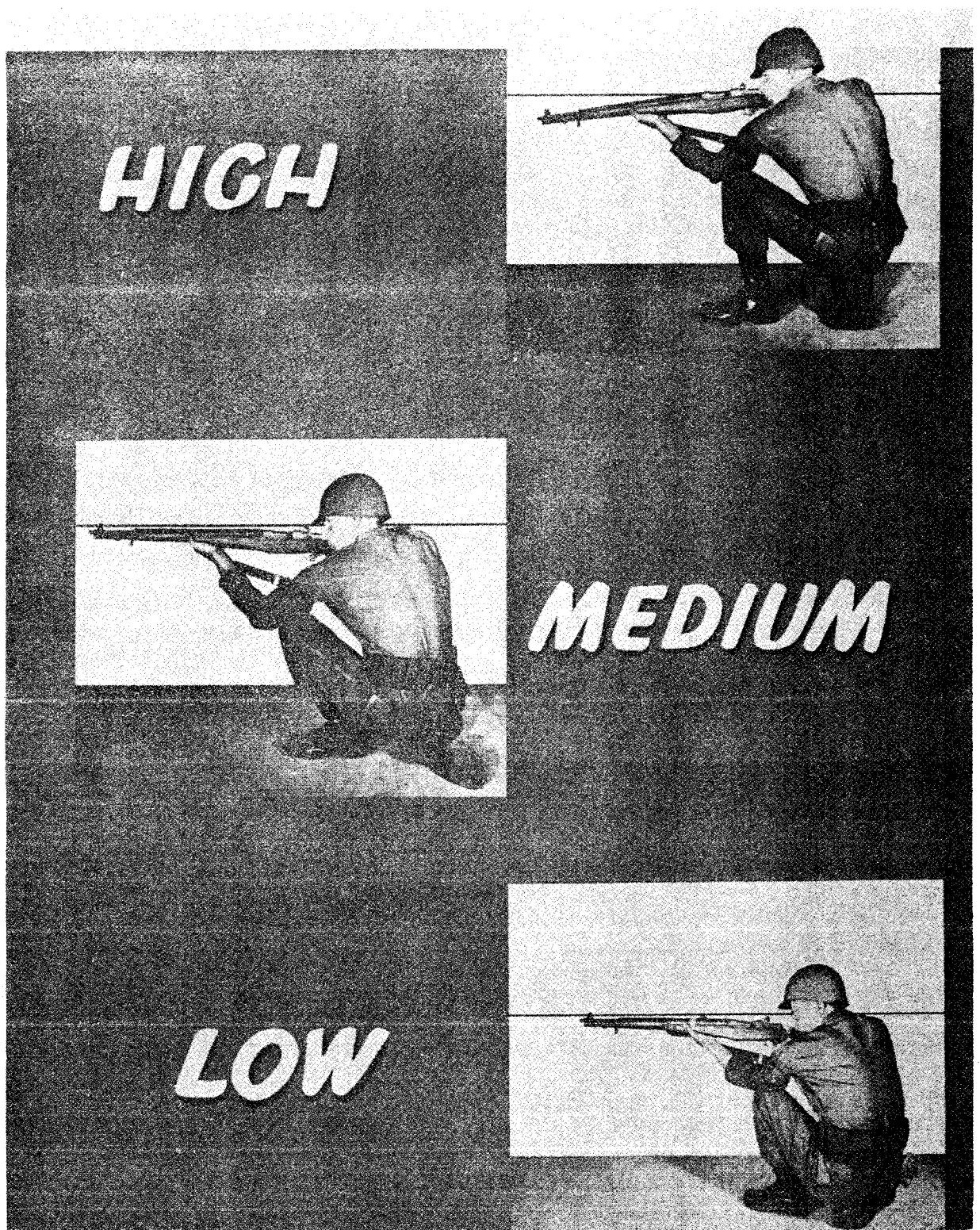


Figure 19. High, medium, and low kneeling positions.

position, but shoves his left foot forward a few inches.

If the firer's right foot goes to sleep and an annoying pulse develops in his right leg, he can relieve it by taking the rest position shown in figure 20. He places the rifle butt on the ground to his right and leans forward to the right until his right leg is straightened. He moves only enough to allow the blood to circulate freely, being careful not to lose his basic position.

The high and low kneeling positions require slight variations from the medium position to adapt it for long- and short-legged men (fig. 19). Notice that the long-legged man uses the high position, sitting on his right heel with the toe of his boot turned under. This raises the rifle butt and lowers the muzzle.

The short-legged man kneels in the low position by sitting on the inside of the right foot. This lowers the body and the rifle butt along with it, which brings the muzzle up into a natural alignment with the bull.

#### STANDING POSITION

Body balance is as important to a rifleman as it is to an athlete. This is especially true for the standing position when he must be able to stand for long periods without tiring.

The hasty sling gives more support in the standing position than the loop sling. As its name implies, the hasty sling is easy and quick to get into and out of. When properly adjusted, it lies across the top of the chest and *gives support to the left arm* and, to an extent, the rifle. The hasty sling is more practical for combat target firing and *in combat*.

There is an important difference in the left hand hold in the standing position. The left hand holds the rifle at the balance or slightly forward of it. A simple experiment in weight holding can demonstrate the reason for this. With the left arm straight out in front, a man can support a 5-pound weight in his hand. If he brings the arm back as in holding the rifle in the standing position, he can support a 25-pound weight with no more effort than was required to support the 5-pound weight with the arm extended.

Also, with the left hand at the balance, the left arm receives more support from the sling. To check this, have your man place his right fist in his left armpit. Tell him to let the left arm fall down on the top of the fist, keeping the forearm in



Figure 20. Kneeling rest position.

the same position as in holding the rifle at the balance. He will notice the support the right fist gives the left arm. A properly adjusted hasty sling gives the same support. Now, have the man extend his left arm out and away from the fist. He will see that he loses this support. By moving his left hand out to the stock ferrule he will, in the same way, lose most of the support from the sling.

The rifleman holds his right elbow high and places the rifle butt in the pocket formed in the hollow of the right shoulder. The butt must be high enough to bring the rear sight up nearly level with the eye. He relaxes his neck so his cheek rests firmly on the stock or on the right thumb, if he can do this without straining. Most of the weight of the rifle should be carried by the right arm and hand. You can liken the support given by the high right arm to the support of a suspension bridge. The rifleman can feel that all of the muscles in his right forearm and hand are pulling up and back on the rifle while the pocket in his right shoulder helps keep the rifle butt in place.

To complete the position, the man should relax *down* into his belt. This will throw his belly *slightly* forward. The rifle touches his neck and rests on the top of his chest.

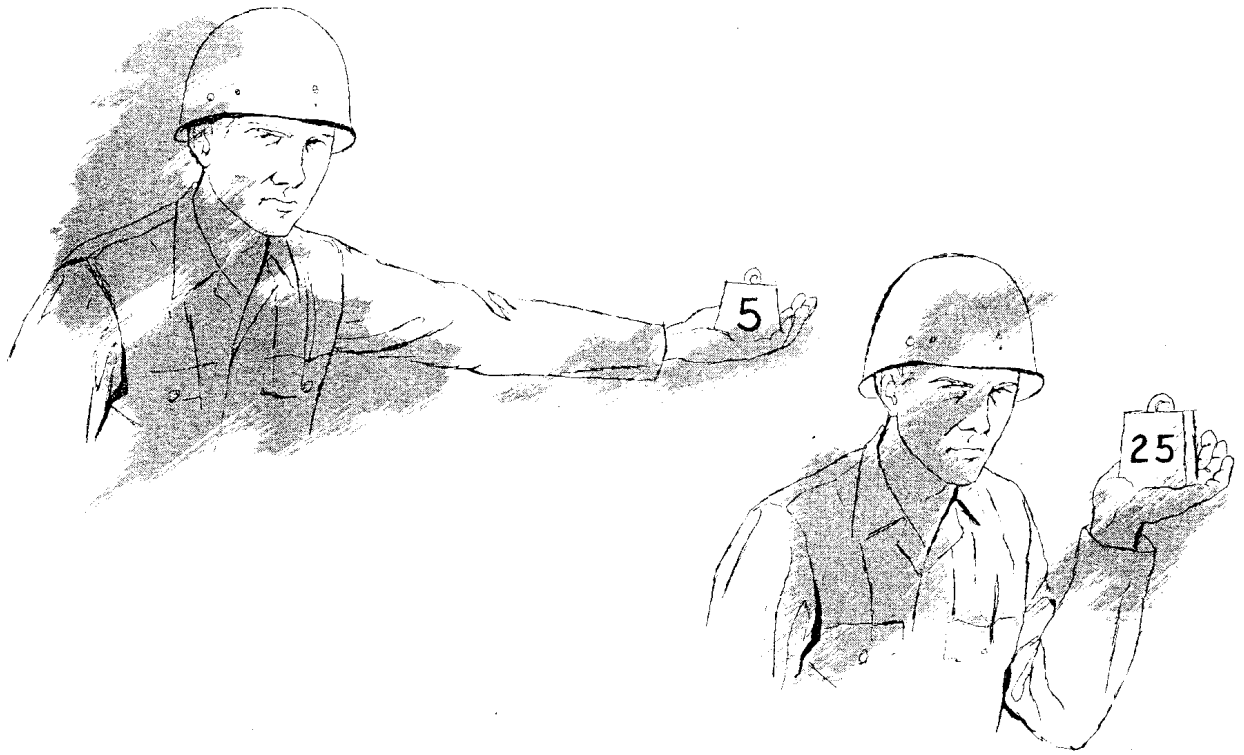
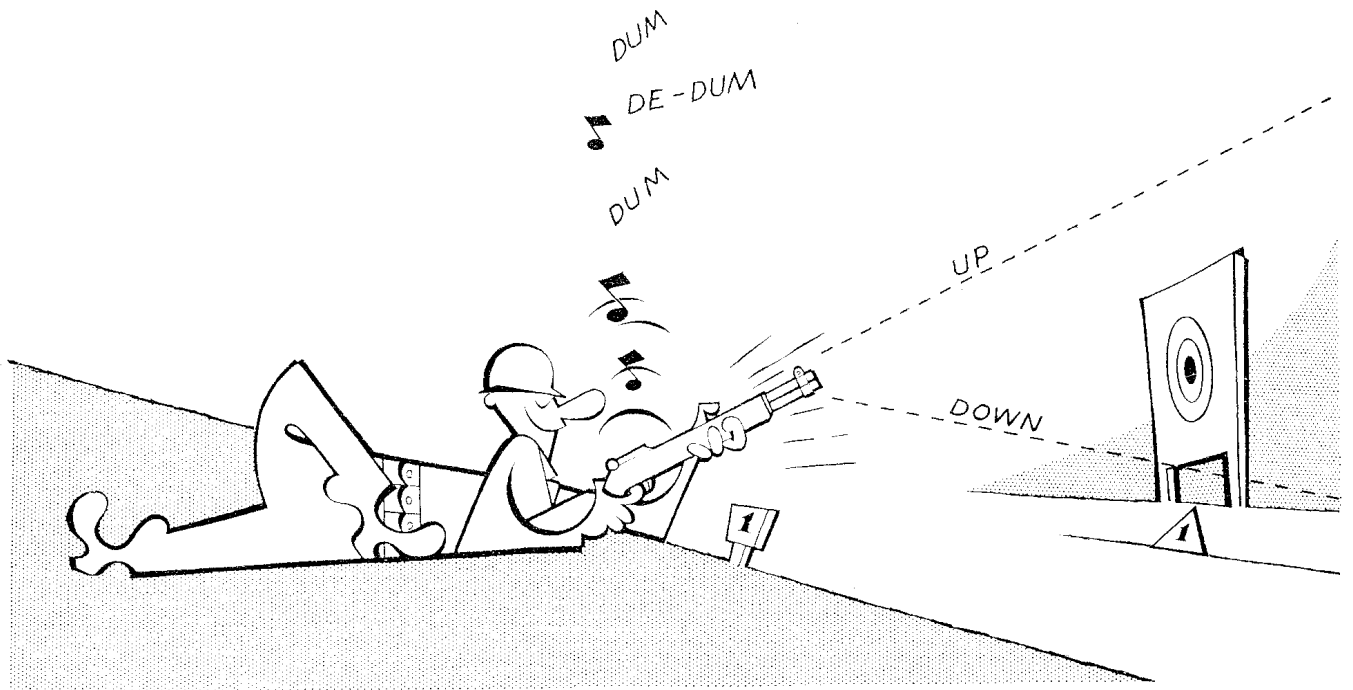


Figure 21.



"DON'T BE A GUITAR PLAYER"

Figure 22.

On a windy day, or after running, a shooter in the above-described position will find that his rifle will move back and forth across the target. In this case, he must temporarily sacrifice muscular comfort to reduce the muzzle wobble. He does this by shoving his left hand out to the stock ferrule swivel, grasping the hand guard with the fingers of his left hand, and pulling the rifle back into his right shoulder with both hands.

#### DON'T FIDGET

Ever notice a "git-tar" or fiddle player put his fingers on the strings in different places in order to get a different tune from his instrument? It

is the same with the rifle. In taking different grips with your left hand, shifting your position, changing your rifle-butt placement, or loosening or tightening the sling while firing, you will enlarge your shot group. Train your men to shift and adjust their position before shooting, then not to move from it (except to load) until firing in that position has been completed.

#### CONFIDENCE

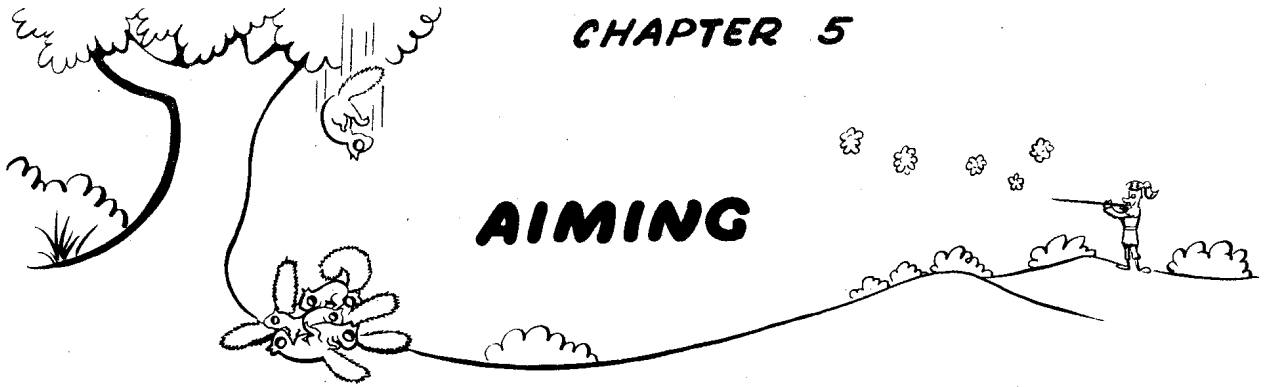
As long as the infantry must take and hold ground, we must have individuals who are confident of their ability to kill the enemy with individual weapons.

*Brig. Gen. Ernest A. Barlow*



## CHAPTER 5

# AIMING



### INTRODUCTION

By and large, everybody does a lot of aiming every day, even if he has never held a firearm in his hand. He aims his shoe at the alarm clock that wakes him. He aims trash at a wastebasket, or a cigarette butt at an ashtray. When he was a kid, he probably aimed rocks at birds or stray cats. In this kind of aiming, the person who aims holds the missile in his hand and propels it to the target by the power of his muscles. Actually, it does not matter very much whether he *hits* the target or not.

Now you have to teach your men a very different type of aiming; you must teach them to aim a rifle. This type of aiming is a fine art and a precise one. Considering the purpose of a soldier with a rifle—to kill an enemy—it makes a whale of a difference whether the missile *hits* or *misses* the target.

The rifle has two parts that make aiming a fine art—the front and rear sights. When a rifleman learns to line up the front post exactly in the middle of the peephole of the rear sight, he has whipped the most important step in aiming.

Some men who come into the Army have done a lot of hunting with rifles that have open sights. They will want to argue that if they can kill a squirrel at 25 yards with an open sight, or a rabbit at 50 yards, they can certainly hit a man with the same sight at 200 yards. They don't mention the squirrels and rabbits they missed at these ranges, or that they sometimes took 2 or 3 shots at the squirrel before they killed it. You can be sure that they did miss more than a few shots, because it is impossible to get precision with an open sight. In combat, precision is a *must* because, unlike squirrels and rabbits, the enemy soldier is going to shoot back.

The peepsight gives more accuracy than the open sight because it forces the rifleman to restrict the

focus of his aiming eye. The eye cannot focus on 2 or 3 things at once. If you don't happen to have an open sight to prove your point, try this. Have each man place his right forefinger about 4 inches from his eye, and his left forefinger at arm's length and line them up with each other as in figure 23. Now have them try to focus on both fingers at the same time. They will see that it just can't be done. Now have them make a peephole with the right hand as shown in figure 24 and look through it at the left forefinger, still at arm's length. They will see at once that they no longer have to focus on two things at the same time to get an alinement. They can focus only on the left forefinger and place it in the exact center of the peephole made by the right hand. They can do this because the peephole has eliminated the *necessity* for focusing on two points at once.

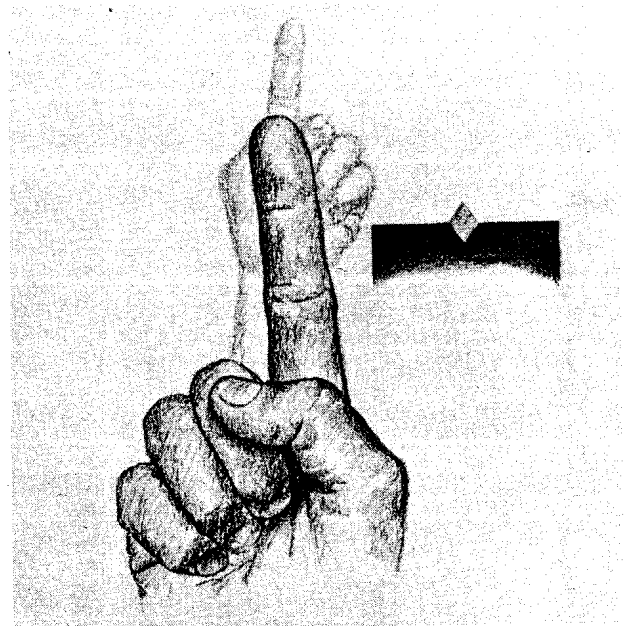


Figure 23.

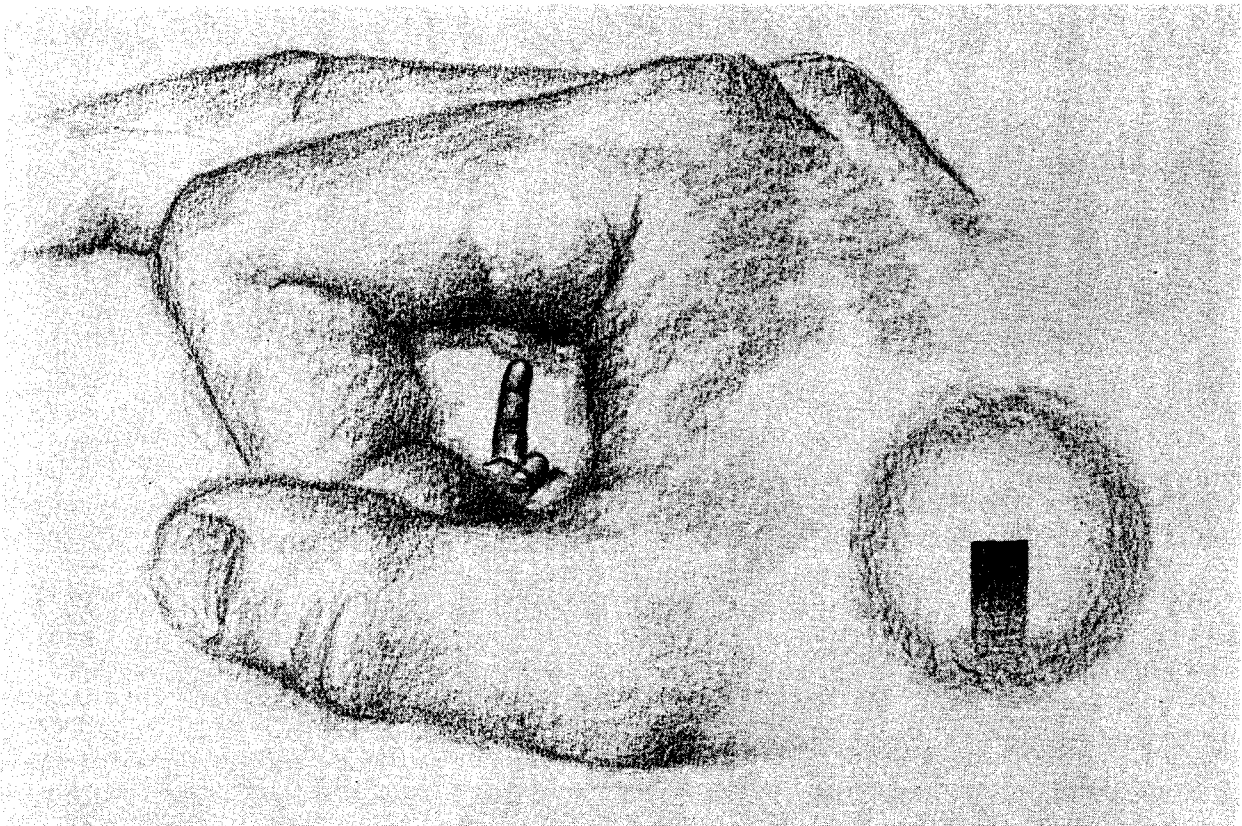


Figure 24.

The peephole in the rear sight is much smaller than the one you had your men make with the right hand. At the first try, your men may have trouble lining up their aiming eye so they can see clearly through this small hole. After a little practice, however, they will be able to center the eye so automatically, it will be as easy as looking out the picture window in the living room to watch the long-legged blond from down the street stroll by.

Every once in a while you may get a man in your class who can pick up an M1 before you begin your instruction, heft it a couple of times, caress the stock, then throw it to his shoulder and get off five quick shots into a bull 200 yards away. Then he will likely hand you the rifle, remarking that it is "a sweet little shootin' arn." He seems to aim by instinct rather than by eye, and to hit his target solely by the grace of God. Don't let this demonstration surprise you. This man is probably, unknown even to himself, using the correct techniques. You still have to teach the rest

of your men to shoot your way, and the nimrod who has just demonstrated his ability will be the first to admit it.

#### BLACKENING SIGHTS

Like every other instrument you depend on for accuracy, the sights must be kept in topnotch condition. They must be clean, free of damage, and tight.

The sights should furnish a contrasting color to the target. For many years hunters have used gold, silver, ivory, pearl, and many other substances to get a contrast with their targets so they could be more sure of getting *hits*. Target shooters, on the other hand, darken their sights by using a hood or sunshade, or blacken them to get contrast.

In the field and in combat, it may be well to clean the front sight and lighten its rear face, but on the *firing range*, the sights should *not* look like a brass belt buckle at a Saturday morning inspection. They *must* be blackened. You can blacken them with the flame of a match, a candle,

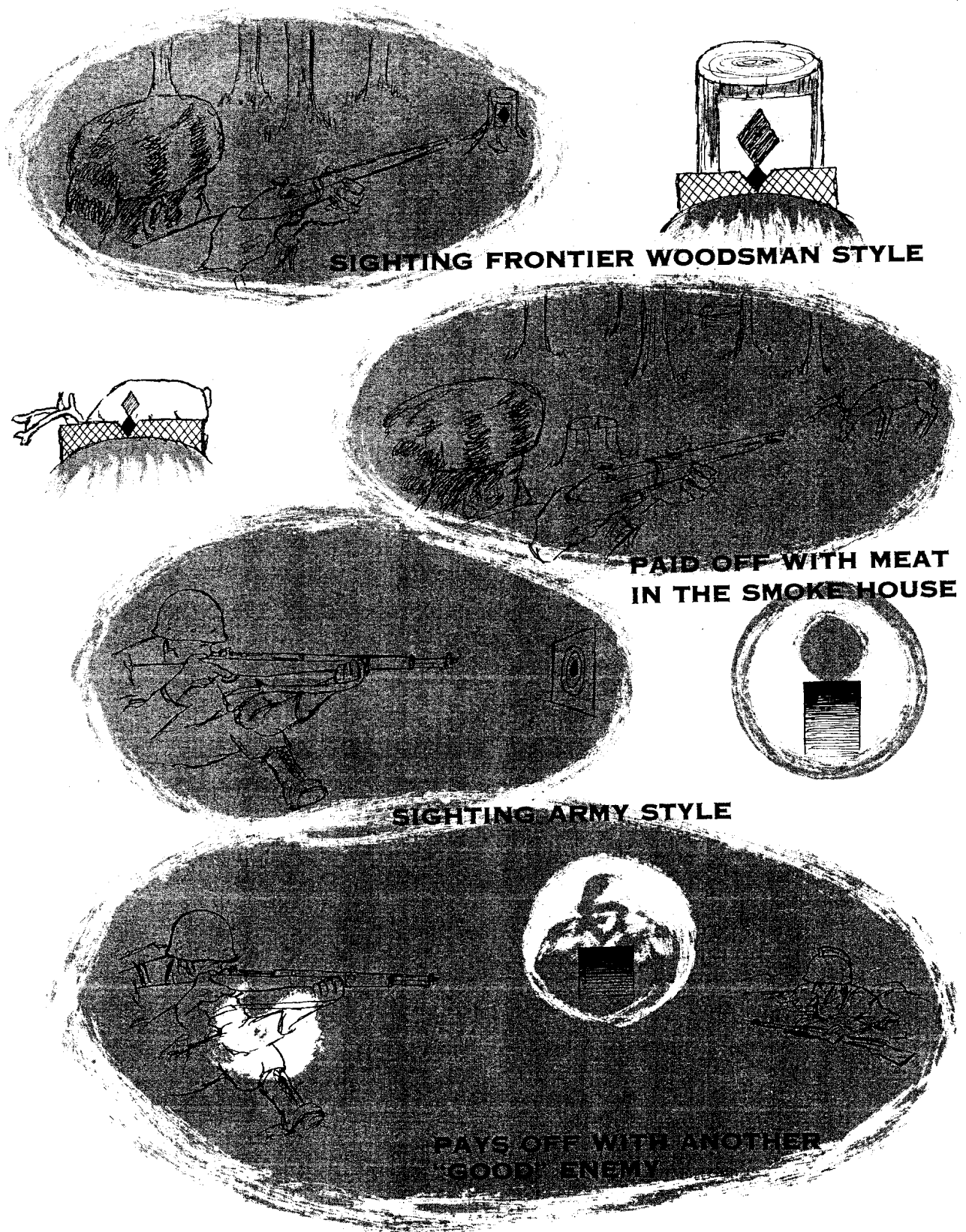


Figure 25. Good sighting pays off.



Figure 26.

or a cigarette lighter, but you can do a far better job with a carbide lamp. It deposits a thin, dead black, nonreflective coating.

### SIGHT ALINEMENT AND SIGHT PICTURE

Sight alinement is the art of looking through the peepsight, focusing your eye on the front sight post, and placing the top of the post exactly in the center of the circle of light you see through

the peep. The man in the left illustration of figure 27 has perfect sight alinement. Note that the vertical center of the front sight post is the center of the peep. When you look at a target through perfectly alined sights and set the bottom of the bull exactly on top of the front sight post, you have a perfect sight picture.

Remember also the tale of the farmboy who was taught this technique by comparing it with look-

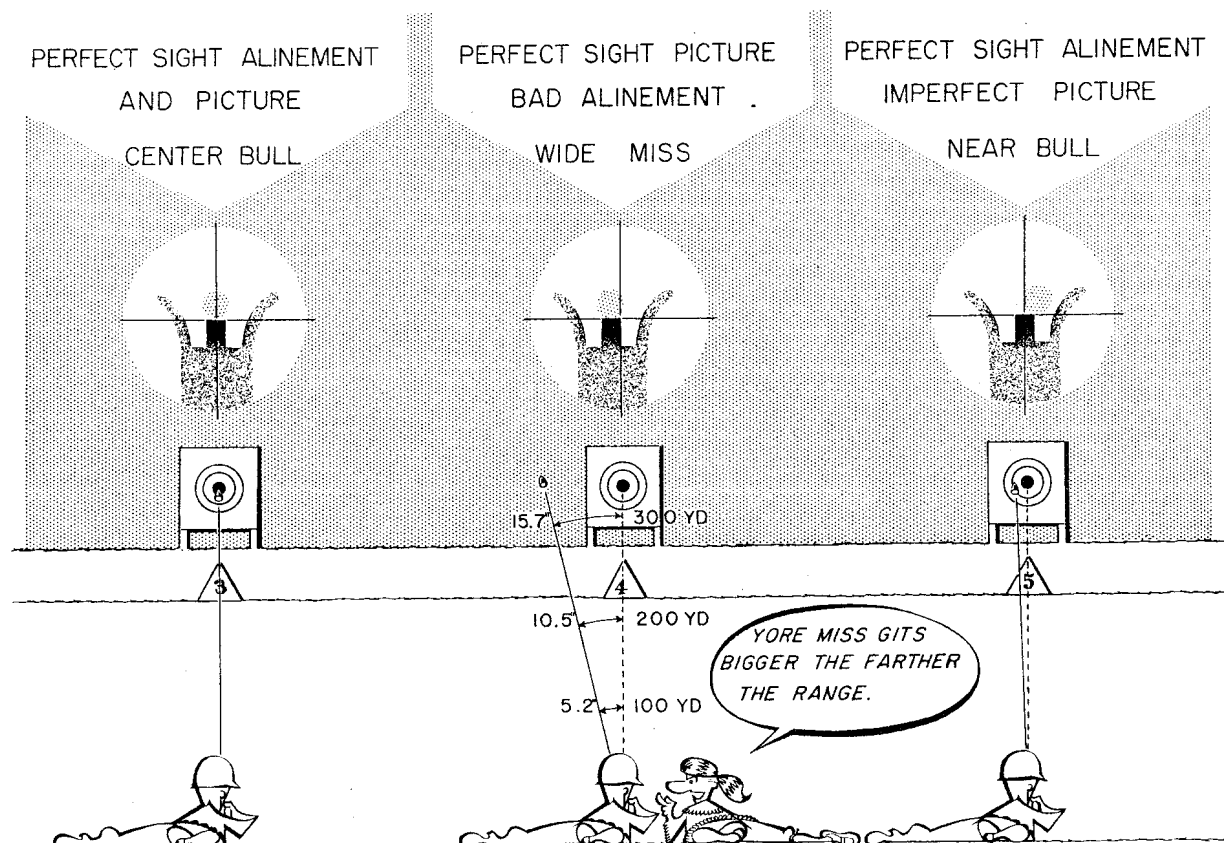


Figure 27.

ing out a window, centering a fence post in it, and placing a pumpkin on top of the post.

Tell your class often and forcefully that perfect sight alinement is much more important than a perfect sight picture. Explain why this is so and illustrate with an example. The middle picture of figure 27 shows the *right edge* of the sight post alined with the center of the rear peep. This seems like a tiny error, because the alinement is off only one-half the width of the front sight, about 0.041 inch. But observe what happens to the bullet after it leaves the rifle muzzle. It continues to move away from the point of aim as it travels so that at 200 yards it will strike the target 10.5 inches to the left of the aiming point.

On the other hand, when you have perfect sight alinement, but do not get a perfect sight picture when you set the bull on top of the front sight, you can still get a hit close to the bull. See the man on the right in figure 27.

## SIGHTING AND AIMING EXERCISES

There are three sighting and aiming exercises you will use to train your men to aline the rifle sight and to find the correct sight picture. Careful and thorough training in these exercises will take your men well on the way to becoming good marksmen.

The M15 sighting device is a training aid that your men can use individually and by groups during all phases of marksmanship training (fig. 28). Give one to each of your men. It has movable parts representing the front and rear rifle sights and a bull's-eye which your men can manipulate to get a visual picture of sight alinement and sight picture as you discuss the various phases.

The old standby, the sighting and aiming bar, is the training aid you will use to have your men practice the first sighting and aiming exercise.

*First Sighting and Aiming Exercises.* First, demonstrate correct sight alinement using a chart

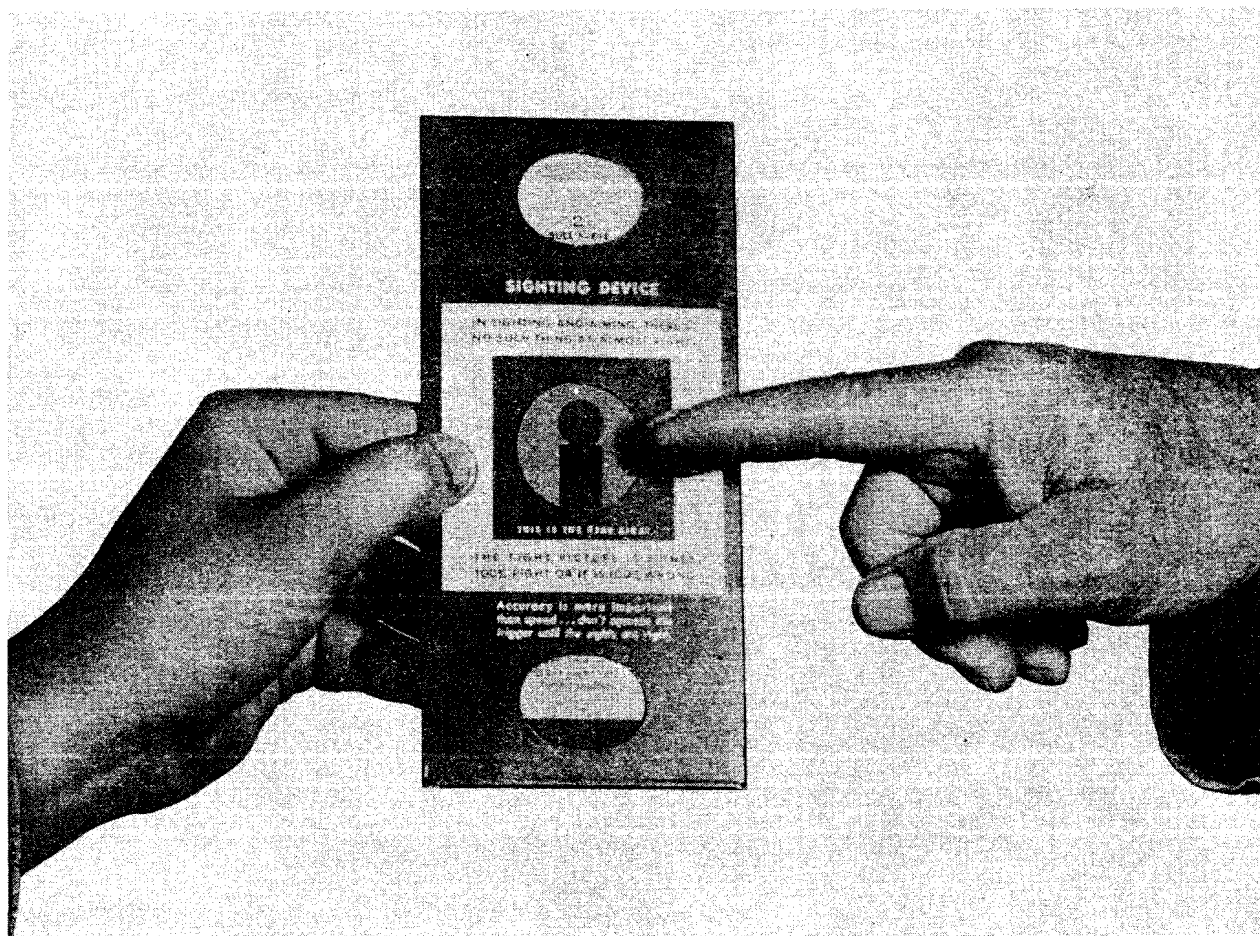


Figure 28. You can use the M15 sighting device to teach sight alinement.



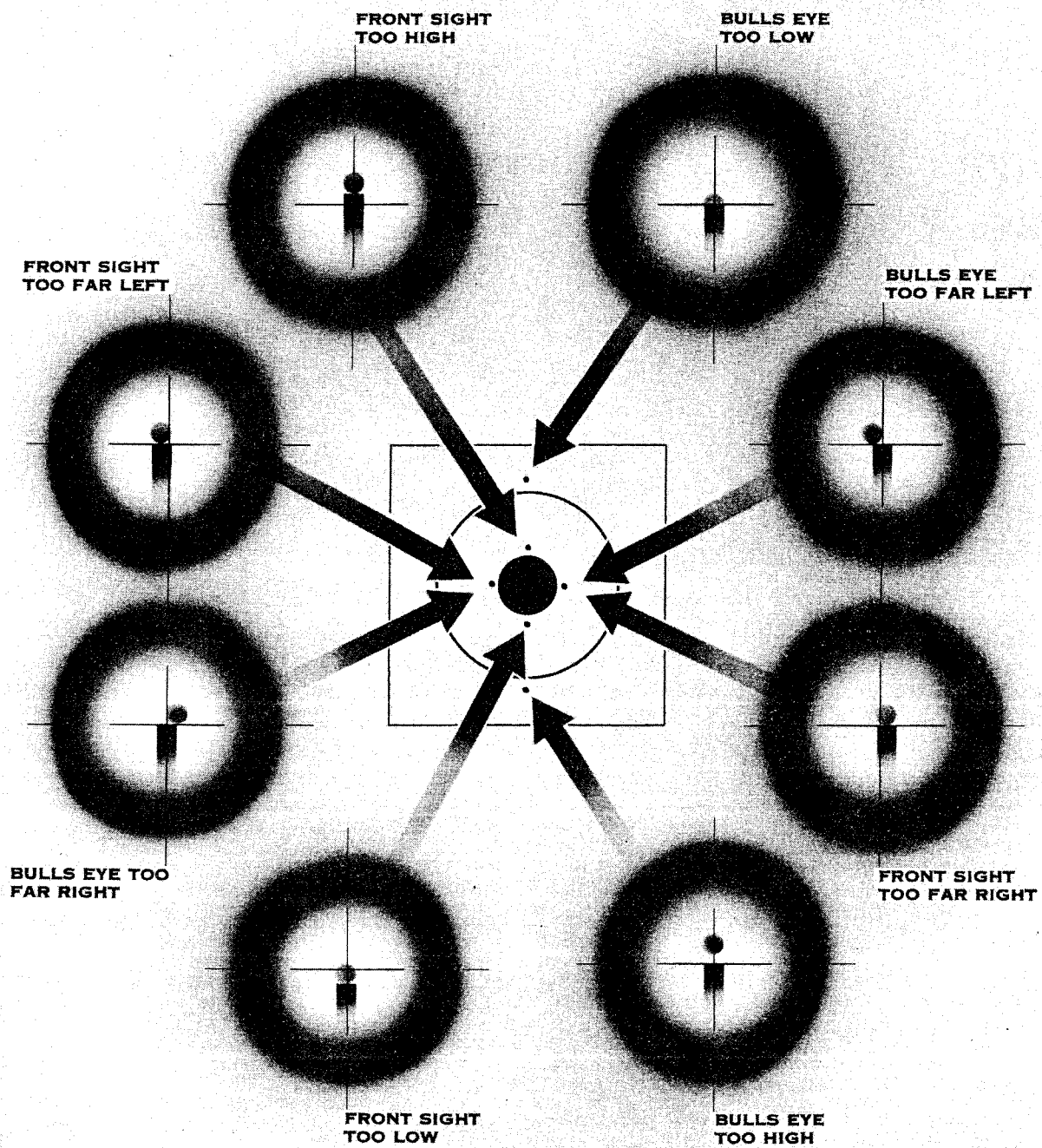


Figure 29. Errors in sight picture.

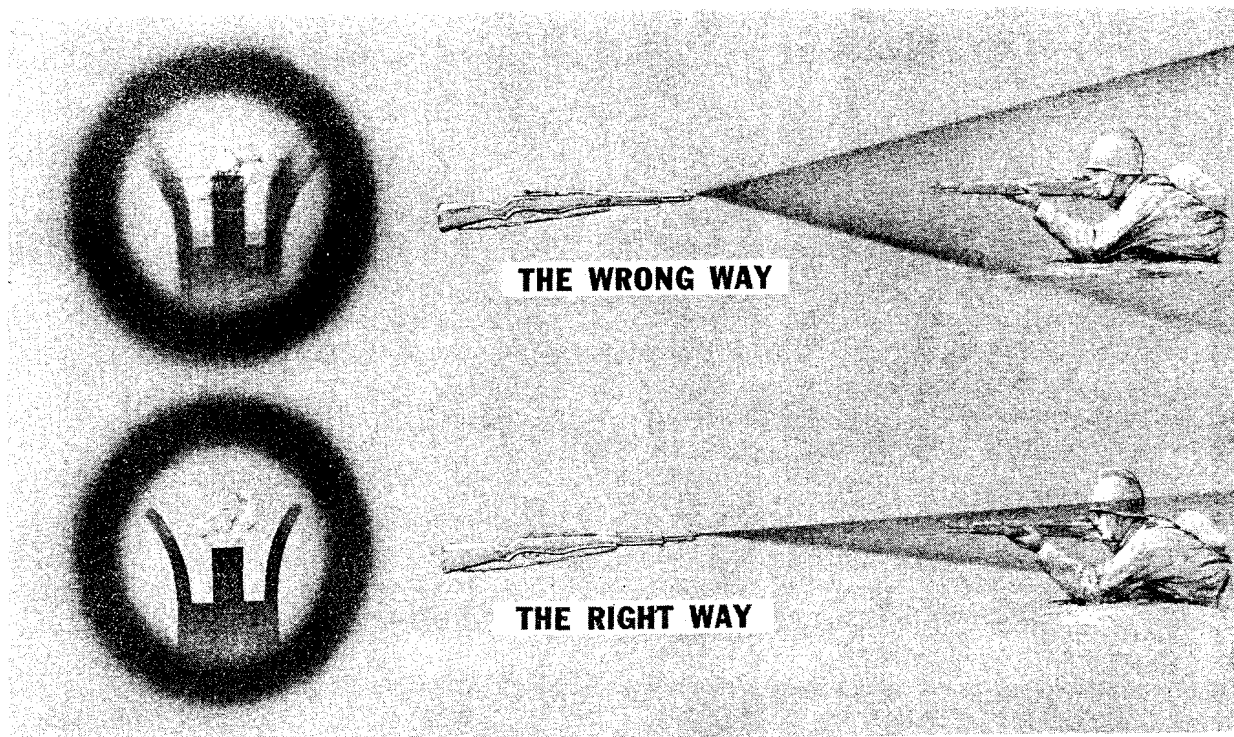


Figure 30.

or blackboard, then set up correct sight alinement on the sighting and aiming bar and show it to all the class. Next, set up errors in sight alinement and show them to the class. Discuss the effect the errors will have on the strike of the bullet. Have your men correct the errors in alinement.

Now add the bull to the sighting and aiming bar, and set up the correct sight picture. Show it to your class. Then set up errors in the sight picture (fig. 29) and discuss the effect they will have on the strike of the bullet. Have your men correct the errors in the sight pictures.

*Second and Third Sighting and Aiming Exercises.* For these exercises, you will need a rifle, rifle rest, 3-inch aiming disk, an ammunition box, a blank sheet of paper, thumbtacks, and a pencil. Set the rifle firmly in the rifle rest with the paper tacked to the ammunition box and placed approximately 50 feet in front of the rifle. (This setup is illustrated in FM 23-5.) Set up correct sight alinement and sight pictures on the rifle sights and show them to your men. Then set up errors and have your men correct them as you did with the sighting and aiming bar in the first exercise.

When your men get perfect sight alinement and make perfect sight pictures using the rifle sights, go on to the third exercise. It is just like the sec-

ond exercise, except that the marker at the aiming disk marks groups of three sight pictures for each man. These marks represent shot groups. Each group should be so compact it can be covered with the eraser end of a pencil. Discuss the pattern of the shot groups. Tell your men why inaccurate vertical sight alinement or placing the bull above or below the top of the front sight causes high and narrow shot groups.

Show them that flat and wide shot groups are caused by inaccurate horizontal sight alinement and sight pictures. Use a shot group that is both high and wide to illustrate what a combination of vertical and horizontal errors in alinement and sight pictures will produce.

#### KEEP BOTH EYES OPEN

When you read a newspaper, thread a needle, or look closely at something you want to see, you use both eyes. This is normal from childhood up, as anyone knows who has tried to teach a kid to wink. If the sprout is young, he will be unable to wink one eye without the other. Since the eyes are coordinated and work together acting as locators and depth perceivers from shortly after birth until death or accident stops it, it seems only sensible to use BOTH eyes when shooting.

There is a cult of squinters in the shooting world, some of whom are one-eyed shooters for the good reason that their nonaiming eye is the master eye. A great number of others have been taught to shoot with one eye just because someone else does it. Maybe they have seen a sporting goods advertisement of a kid with a new .22 shooting rats with one eye squinted up as if it had pepper in it.

Your eyes will stay stronger longer and your picture will be clearer if you keep both eyes open when sighting. A slight squint to dull the vision of the left eye is okay. If you wear glasses, you may put a small piece of paper in the 12 o'clock part of the glass so that the left eye cannot see the sights and target when aiming. If you can use both eyes without such a device, so much the better. When firing with both eyes open, the recoil will obscure the sight of the right eye for an instant, but the left eye still has the target location spotted and will soon vector in the right eye.

## REMINDERS

At this stage of training, you must constantly remind your men that sight alinement and sight picture must be perfect. Particularly, a sight *alinement* that is not *exactly* right is not good enough.

Remind them that they must focus on the front sight—not the target. This will make the target appear a little blurred, but not enough to keep them from getting good sight pictures. Sometimes a rifleman must focus momentarily on a target, especially a moving target, but the eye must focus again on the front sight just before firing.

Canting the rifle—that is, tilting it to one side or the other—does not necessarily keep a rifleman from getting a correct sight picture. However, it is somewhat like trying to read a book held in the normal position while lying on your side, and can only complicate this stage of training.



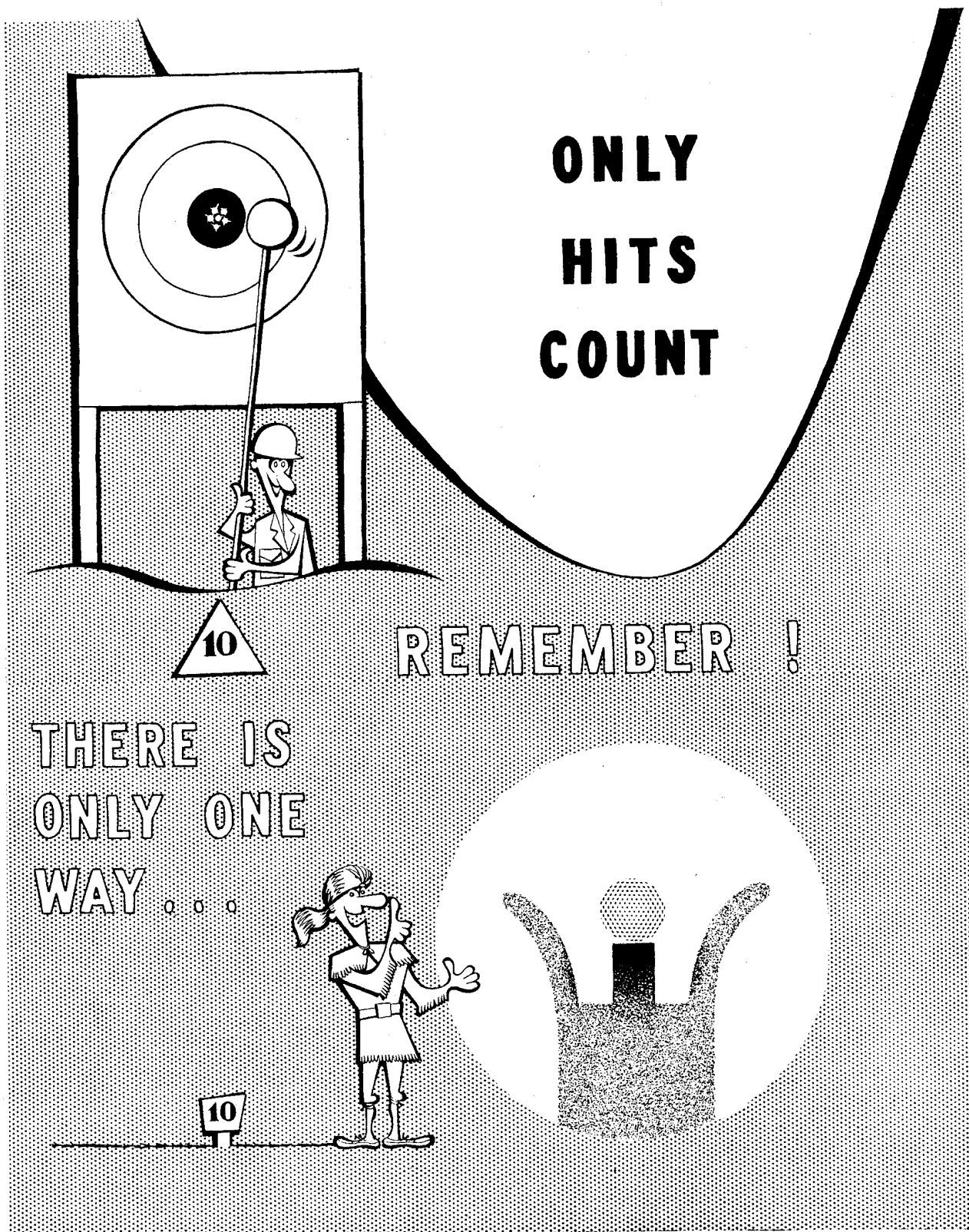
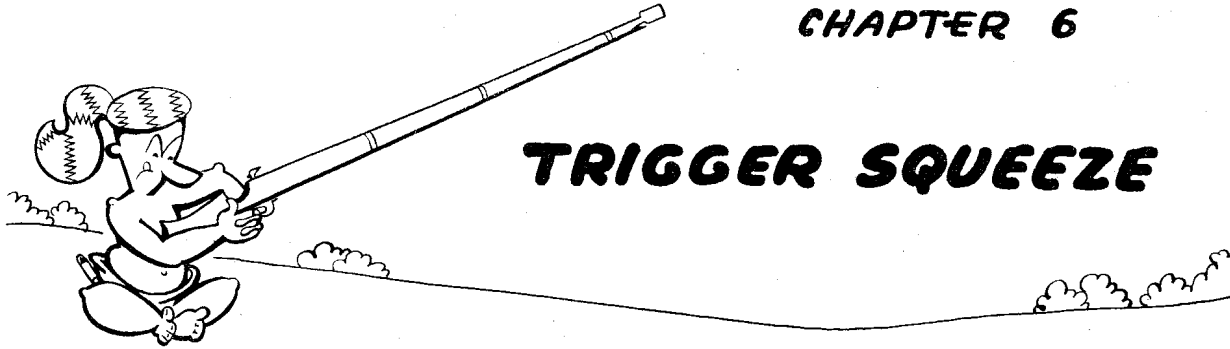


Figure 31.



## TRIGGER SQUEEZE

### INTRODUCTION

Whoever said "Experience is the best teacher" could well have been talking about learning to shoot a rifle. A man can go through days and weeks of training, learning how to align his sights, twisting himself into a pretzel trying to get into various positions, having information thrown at him at a mile-a-minute clip. But the real test comes when he holds that rifle to his shoulder, peeks through his sight at that big black bull, and SQU-e-e-e-zes off a *live* round. It is here where good riflemen are made—or unmade. It is here where all the hours of training can either pay dividends or make a man wish he had joined the medics. For a potential rifleman must learn the most important step of rifle marksmanship:—SQU-e-e-e-e-zing the trigger.

### TRIGGER SQUEEZE CONVINCER

Very often, a man will feel that he is squeezing the trigger perfectly and that his bad shots are the result of a faulty barrel, crooked sight, or unsteady holding. *You* may be quite sure that his trouble is in his trigger squeeze, but you will have to prove this to him. You can prove it with the trigger-squeeze convincer.

The convincer is the device you see illustrated in figures 32 and 33. It is made up of two parts that are connected by an automobile choke cable. The part that hooks onto the trigger should be covered with a shield and attached on the left side of the trigger guard so the rifleman cannot watch it work. The handle part is held out of his line of vision when you are using the gadget to convince him. You can make a convincer by following the plan in figure 34.

When using the convincer, your rifleman sights and aims as usual, but does *not* put his finger on the trigger. You watch the man's breathing. When you see him hold his breath, you know he has his sight picture and is ready to fire, so you

squeeze off the round for him. (You may be able to use the convincer more accurately in conjunction with the M2 aiming device.)

This simple action gives better results than you might suspect. For example, a certain soldier who had fired 8 rounds, standing, at 200 yards, made a total score of only 10. He claimed it was because he could not hold the muzzle steady. His coach made a small bet with him that he could prove it was a matter of trigger squeeze.

He attached a convincer to the soldier's rifle and, together, they fired another 8 rounds. The score was 31'. Taking more pains with his trigger squeeze, the soldier then fired 8 rounds on his own and came up with a score of 28.

What happens when you SQU-e-e-e-ze the trigger? Simply, you *hit* what you are aiming at if, of course, you have taken a good position and have aligned your sights properly. Most important of all, *you avoid flinching!*

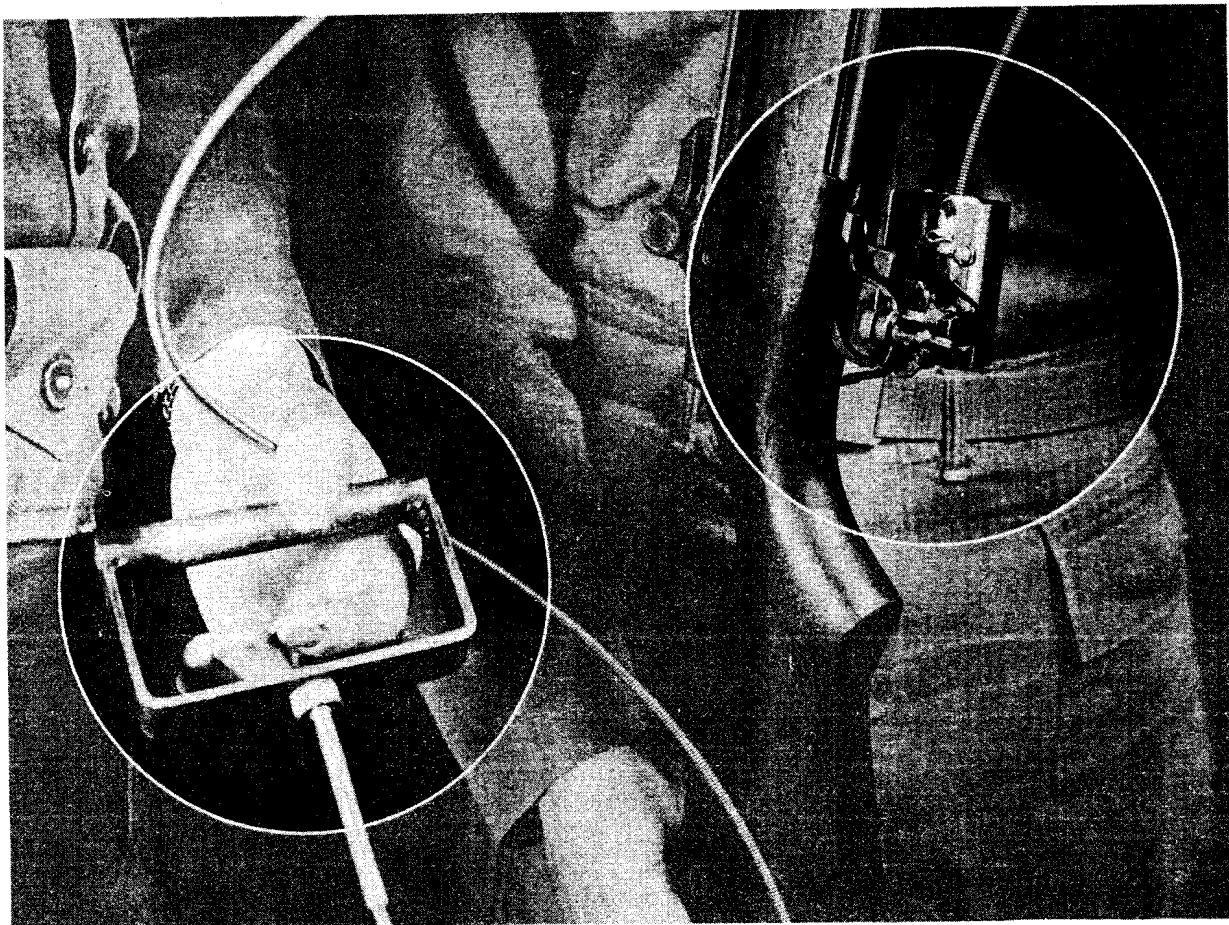
A man is not a coward because he flinches. Everyone is startled by sudden noises, even when they know the noise is coming. Flinching is caused by anticipating the explosion. A man who anticipates this explosion will, in most cases, close his eyes and jerk the trigger. If a rifleman can lick this problem, chances are all in his favor that he will be a good shot.

One way to avoid flinching is by concentration. All riflemen, when they are ready to squeeze off a shot, should think of the code word BRASS. Translated, this means *Breathe, Relax, Aim, Slack, Squeeze*. If a man does these things in order, there is no reason why he cannot *hit* the target every time.

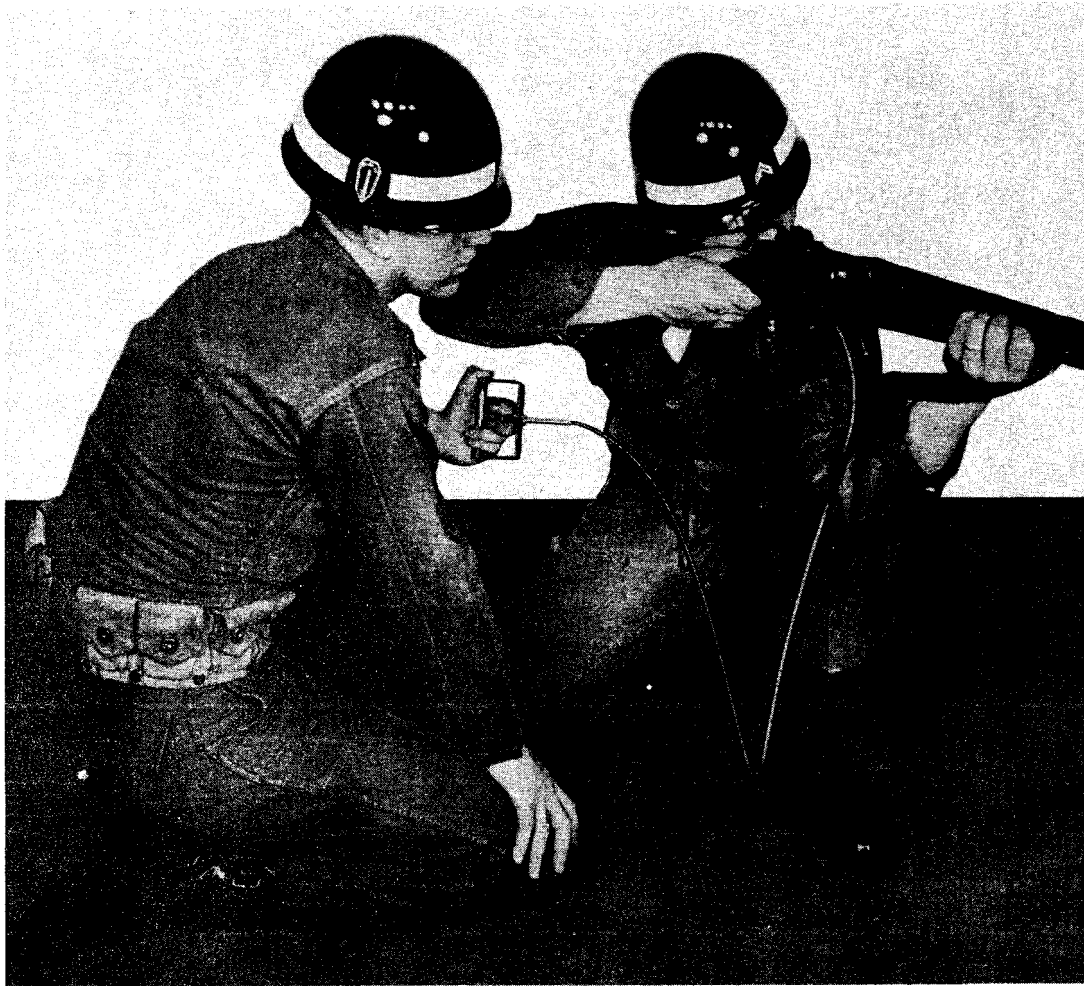
### BREATHING

Let's talk about breathing. It is an important fundamental of good shooting, because it steadies a rifleman, and a rifleman must be steady to shoot.

Before a rifleman SQU-e-e-e-e-zes off a shot,



*Figure 32. Trigger-squeeze convincer.*



*Figure 33. Using the trigger-squeeze convincer.*



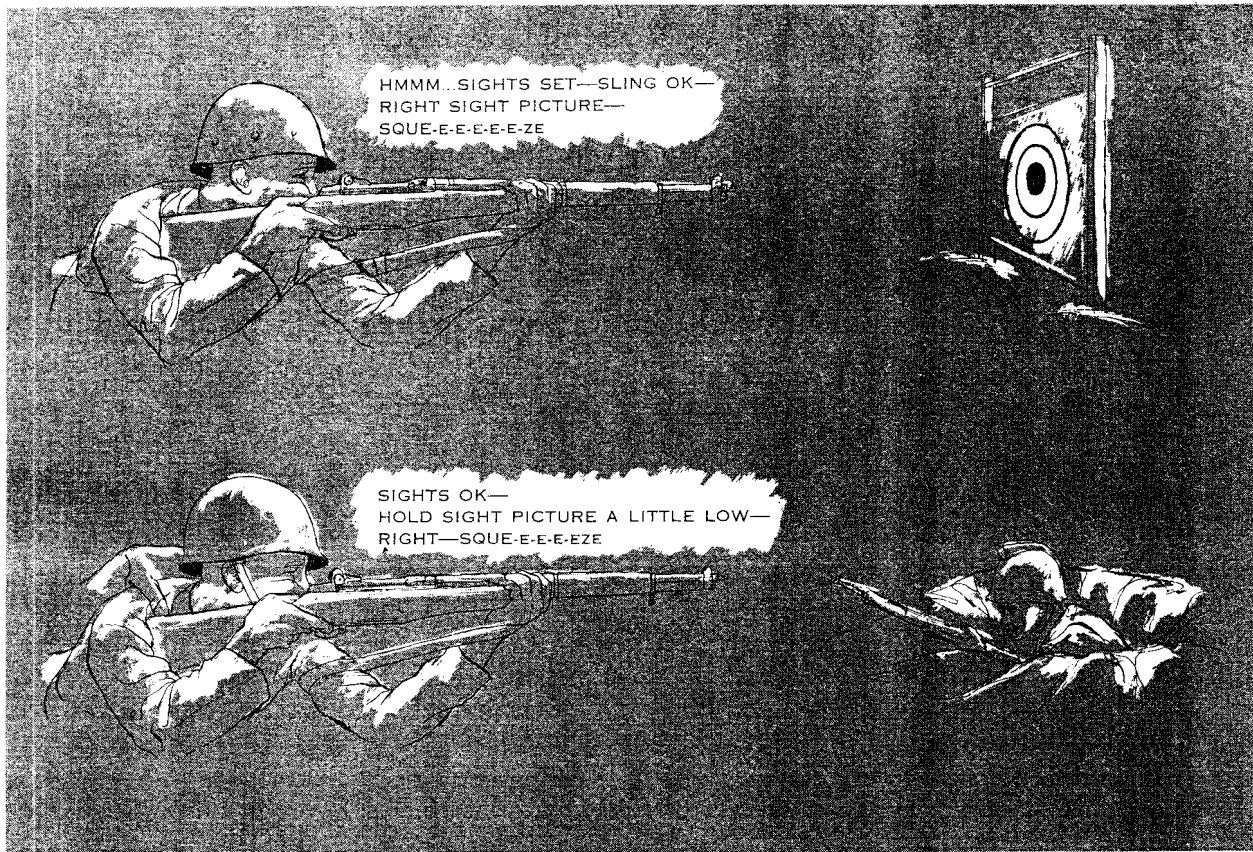


Figure 35.

he should take a deep breath or two, exhale partially, and then stop breathing by closing his throat. Holding his breath naturally, he should complete his aim, take up the trigger slack with a heavy initial pressure, and start to squeeze, which he continues *until* and *after* the hammer falls.

If the rifleman does not get off his shot in a reasonable length of time (8 or 9 seconds), he should stop his trigger squeeze, relax, take several breaths, and start all over again.

The extra oxygen taken into the lungs gives the rifleman greater ease while he is holding his breath and squeezing. It relaxes the body. Many riflemen feel that the extra supply of oxygen clears up a shooter's vision.

#### KINDS OF SQUEEZE

There are two schools of thought on how to operate a trigger properly. One we shall call the Army "squeeze" method, the other, the Hollywood "jerk" method.

To explain each of these, let's take two soldiers: Ike Squeezim and Oswald Snatcher. Ike

was brought up on a farm and has done a lot of shootin' in his 21 years. He loves to shoot and does it the right way. No trouble with Ike. He knows that he will hit his target every time by taking up the trigger slack with a heavy initial pressure and by slowly squeezing the trigger until the shot is fired and the target is *hit*. Ike is his instructor's pride and joy.

But what about Oswald? Well, Oswald's hero is Trotalong Happily, the movie star, and whatever Trotalong does is good enough for Oswald. Oswald came into the Army eager to get his hands on a rifle. After all, hadn't he learned to shoot by watching Trotalong perform in the movies? So, Oswald gets on the range, brings his rifle up to his shoulder, and begins snapping off shot after shot. What happens? The rest of the guys on the range have to duck for cover, the birds in the sky take off like an F-80 after a MIG, and the guys in the pits hang out the white flag of surrender. And what does Oswald hit? Nothing.

Squeezing the trigger properly can be compared to putting toothpaste on a toothbrush. You want

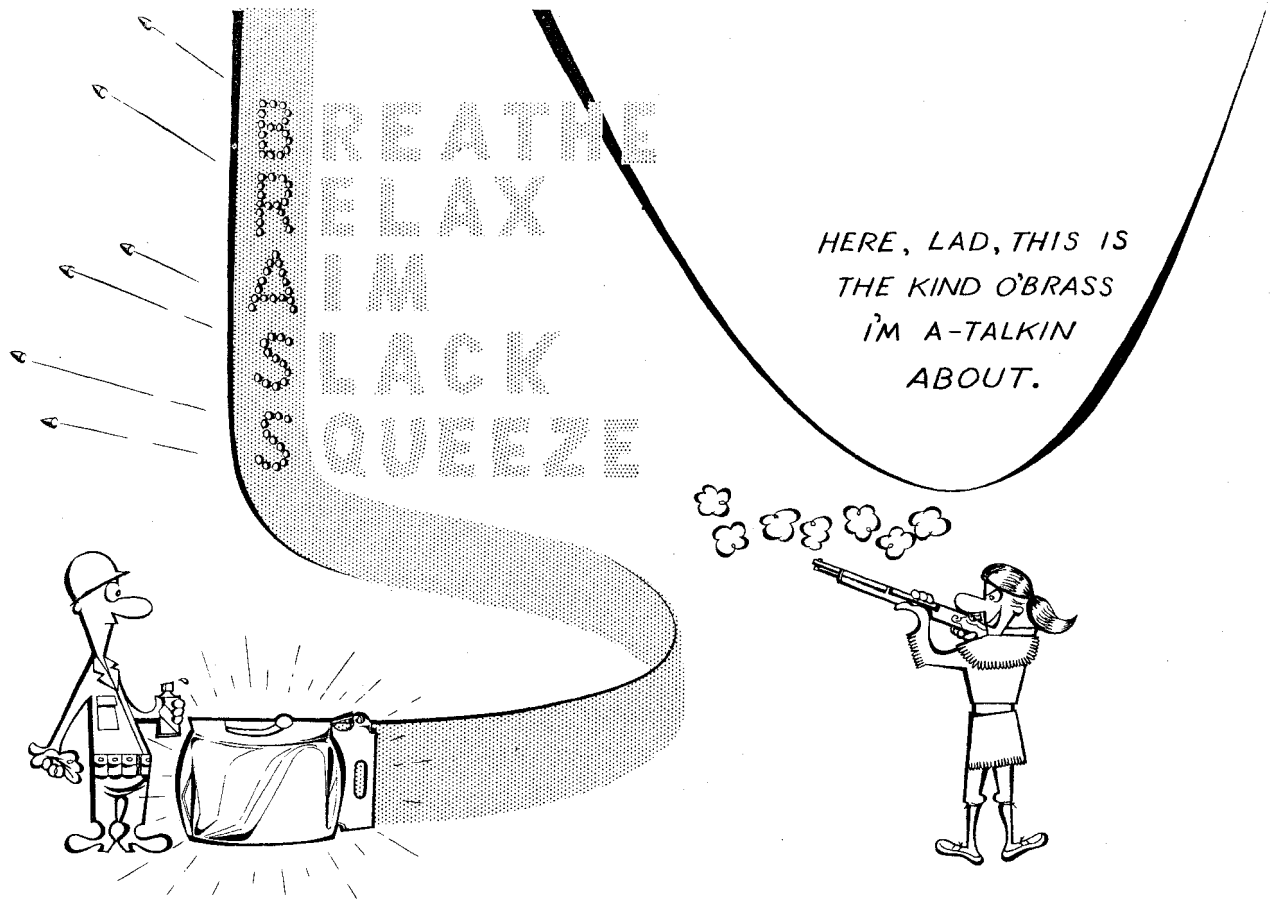


Figure 36.

to get only enough paste on the brush to polish your teeth. So, you squeeze slowly and gently. If you squeeze too hard, you have toothpaste all over the brush, all over yourself, and all over your newly cleaned bathroom floor. It's the same thing when shooting a rifle. You want to squeeze only hard enough to fire the shot without flinching. To do this, you must not know when the rifle will fire. Squeeze any other way and you'll send the round into the dirt or any place except in the target.

#### CALLING YOUR SHOTS

Perhaps the most famous example of a person calling his shot happened in 1932 in Chicago, Ill. Wrigley Field was jammed as the New York Yankees and the Chicago Cubs squared off for the third game of the World Series. In the fifth inning, Babe Ruth, the mighty Bambino, playing in his last World Series, came up to the plate to face Charley Root, Chicago pitcher.

The Chicago partisans had been riding Ruth

during the entire series, and he was getting a little tired of it. The Babe strode to the plate and with a mighty gesture pointed to the most distant part of Wrigley Field. Root poured over two strikes, which Ruth took deliberately. Then, on the third pitch, the Babe swung and hit the ball to the part of the ball park he had pointed to—and made a homer on it. The crowd never jeered the Babe after that.

Neither will people jeer you if you learn to call your shots properly. Calling shots when shooting a rifle is a heck of a lot easier than calling your shots when playing baseball. Casual shooters and riflemen of little experience usually fail to call their shots. When they do call them, they call them wrong. This is one reason they are just ordinary shooters. If the rifleman is not taking sufficient pains with sight alinement and trigger squeeze to know what sight picture he has at the moment the rifle goes off, he needs to be reinstructed.



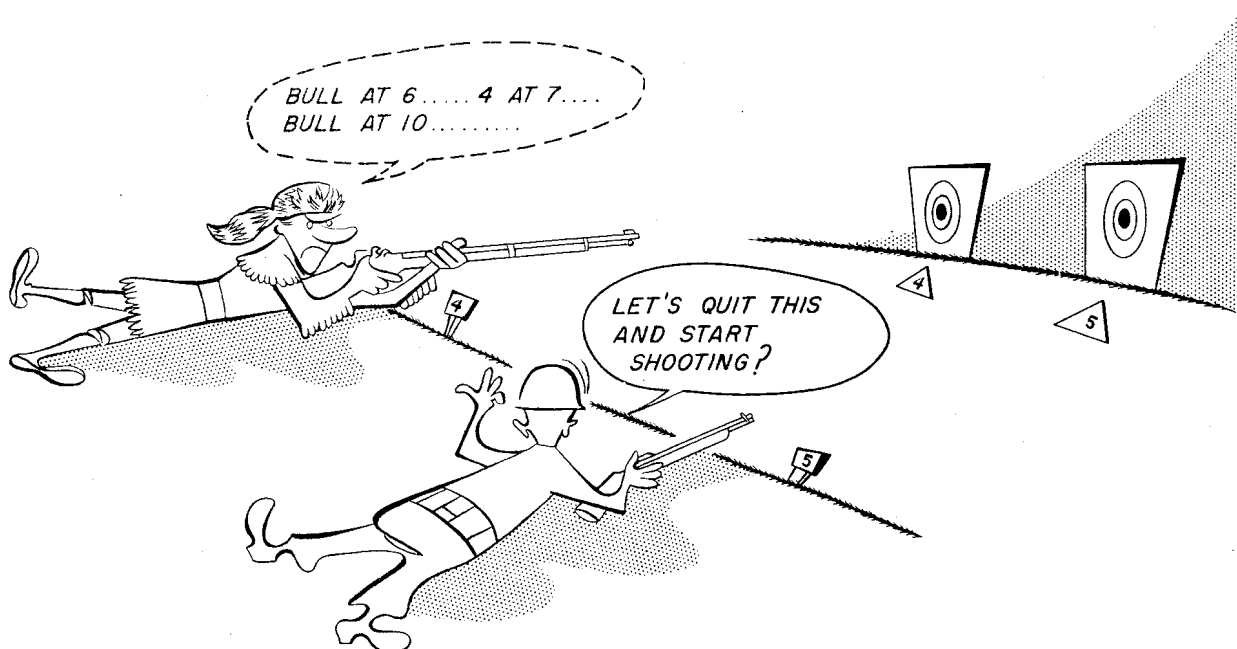


Figure 37.

A good rifleman is very critical of all the things that go into calling a shot. He notices them carefully and takes them into account when he calls his shot. Notice figure 38, for example. The front sight is slightly below center in the rear peep, but *the bull's-eye is properly centered on the front sight*. An inexperienced rifleman would probably call this a "center bull," if his squeeze was good. A more experienced shooter, however,

would have called it a "bull at 6 o'clock," which is the proper call.

With your shot group centered on an A target at any range, the mean point of impact is 6 inches above the point of aim. When you call a shot, you must adjust your thinking to approximately that distance above the top of the front sight. In figure 39, for example, the shot should be called where the small dot appears—a "four at 9 o'clock," instead of a "four at 7 o'clock."



Figure 38. A bull at 6 o'clock.

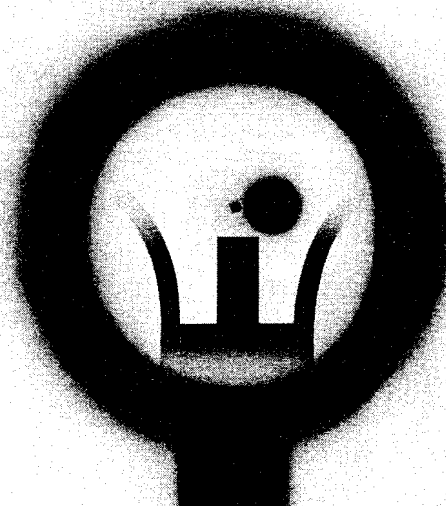


Figure 39. A four at nine o'clock.

## FOLLOW THROUGH

When talking about calling shots, we discussed Babe Ruth and how he called his shot back in the 1932 World Series. Look at the picture of the Babe swinging a bat and you can see that he always demonstrated another fundamental of good shooting—the *follow through*. All great athletes have this one quality which is so important in sports. Of course, follow through is more important in such sports as baseball and golf, but all athletes, whether they are football players or ping-pong players, must have a follow through in varying degrees.

And so it is with shooting a rifle. A man who does not shoot would think that the follow through would not normally play an important part in shooting. The rifleman is never pictured with his rifle wrapped around his shoulder like a baseball



Figure 40. Follow through.

bat or golf club. Let's see why follow through is important ~~when~~ shooting even though the projectile is in the barrel for only 1/1400 of a second after the hammer falls.

A rifleman's follow through consists of doing the same thing *after* the shot was fired as *before*. The trained rifleman continues to hold his breath, continues to focus on the front sight, and continues to squeeze steadily and strongly even though he has heard the piece fire. By doing this, he can watch for errors in his sight alignment and his sight picture. If he detects a variation in his shooting, he can quickly correct it by noting the error after he has followed through. For example, an experienced rifleman notices that after he fires a shot, the sights drop into place at 3 o'clock in the four ring. Immediately, he knows that this is a telltale sign of a bad position. So he shifts his position and fires a couple of rounds just to be sure, following through each time until he gets *hits that count*.

Many men have trouble following through when firing on the range. Too many things are going on, and they cannot concentrate. Following through is all a matter of concentration and habit. This can be achieved on the prep field, and the method of achieving it can brighten up dry shooting sessions.

When the shooter gets into position, place a coin on the barrel, back of and clear of the front sight. The rifleman must do two things to keep the coin on the barrel. He must assume a *steady* position and he must squeeze so smoothly that the coin will not fall off when the hammer falls. Unless a man also has a steady follow through, the coin will fall.

Most men will concentrate intensely, trying to keep the coin on the barrel. However, the intense concentration will smooth up their squeeze and followthrough. Eventually, this concentration will develop into habit.

When doing this exercise, one word of caution is needed; Do not place the coin so it touches the rings of the gas cylinder or the front sight base, because the hammer's blow will be enough to knock the coin off each time.

Thus far we have considered the followthrough as it applies to slow fire. Followthrough is just as important, even more so, in sustained fire and much harder to do, because it must be done in an instant. As soon as the piece has fired, a good rifleman will call his shot and check his sight align-

ment to make sure it is correct, more as a matter of reflex than of deliberate action.

More complaints are heard when men fire from the standing position than from any other. A good coach, however, can usually put his finger right on the cause of trouble. If a man takes a good position and has his sights alined correctly, his poor shooting is frequently the lack of followthrough.

Consider the illustration (fig. 41). Funny, isn't it? But watch how many men act this way the next time you are on the range. Undoubtedly, the reason for this soldier's low shot group is that he held his position longer than 9 seconds. So what happened? He got tired and relaxed before he fired his shots. While the sights may have been correctly alined a fraction of a second before the round started on its way, his muscles relaxed and the rifle started downward before the round left the barrel. This soldier will probably insist that he missed because his sights were off. But let him get into a prone position and check, and he will

find his zero to be perfect. His trouble was caused by not following through.

#### LIFE INSURANCE

I wish I could remind each recruit, daily, that every hour he spends on rifle training buys valuable life insurance for his family, home, and friends—that is to say, his country.

*Brig. Gen. Carl F. Fritzsche*

#### THE DAY GEORGE WASHINGTON ALMOST GOT HIS

During the French and Indian Wars, George Washington succeeded in persuading a small group of Kentucky riflemen to join General Braddock in an attack on the French-held Fort Duquesne. Stubbornly, Braddock marched his army through the forests exactly as he would cross a parade ground. Inevitably his men were ambushed and cut to shreds as they stood shoulder to shoulder firing blind volleys at the unseen enemy.

When the thinned and broken ranks of Braddock's army began to retreat, the Kentucky riflemen abandoned these suicidal tactics and started to fire at will, making every shot count. Their superlative marksmanship prevented the total destruction of the force and saved the lives of the few hundred survivors, among whom was Washington himself.

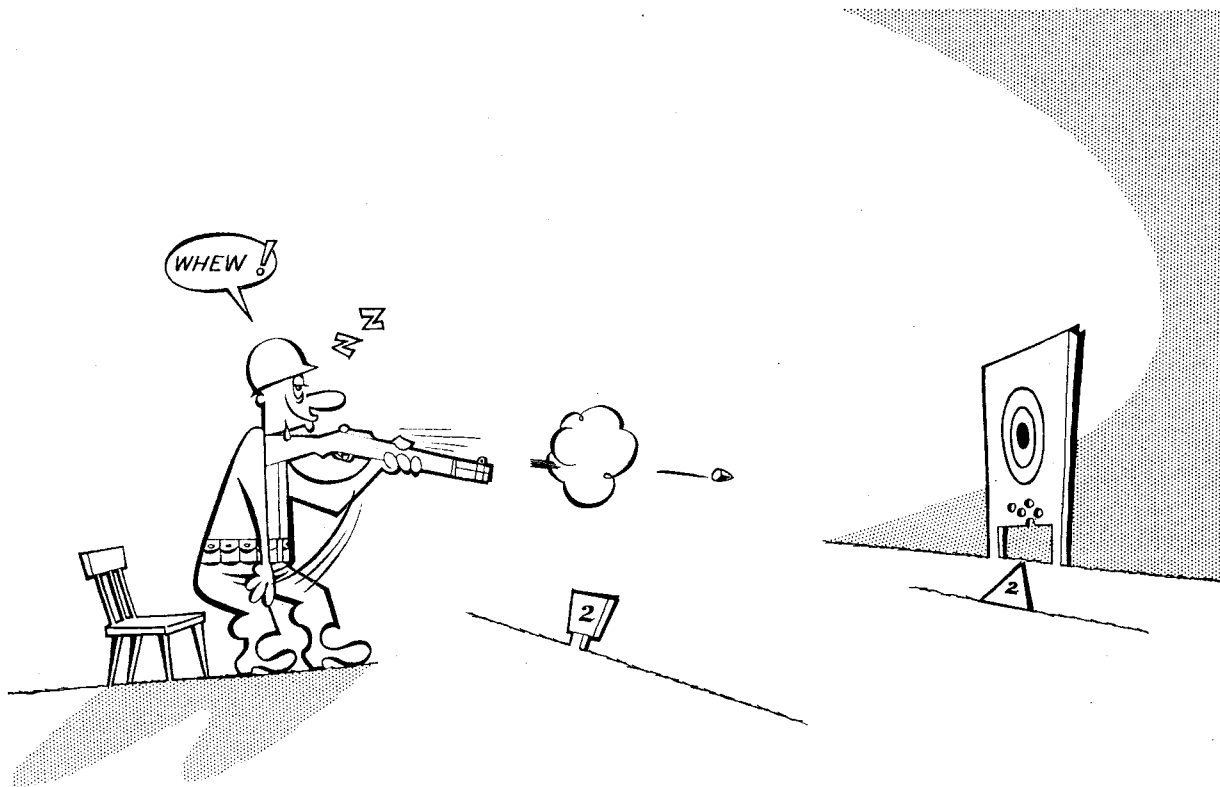
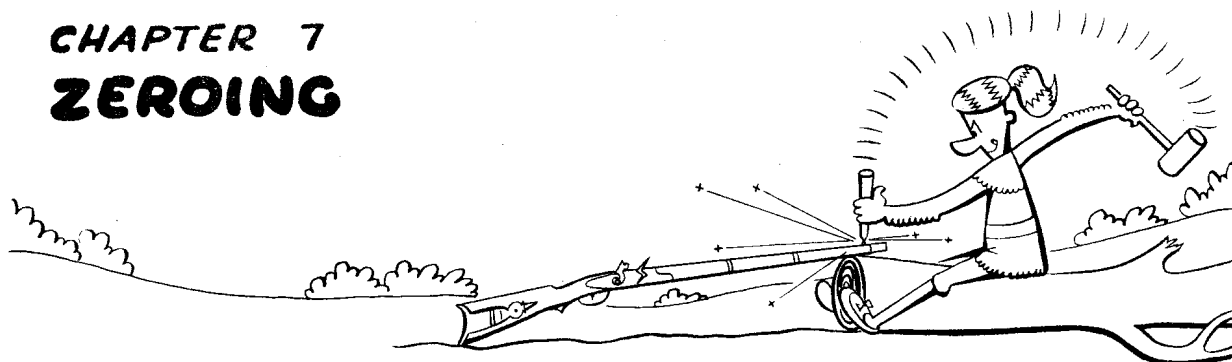


Figure 41. Result of failure to follow through.

## CHAPTER 7 ZEROING



Two principal factors affect a rifle's accuracy: one is purely mechanical, the other purely human.

The factory casts like parts of M1 rifles in the same mold, or machines them to the same pattern, and fits the parts together in the same way to turn out each weapon. No matter how carefully the parts are molded, machined, and fitted together, there will be slight mechanical differences that affect the way each rifle shoots.

All men are cast in the same general mold, their parts are cut to the same general pattern, and they are assembled almost exactly alike. Nevertheless, a man's physique, whether made up of long or short arms, long or stubby fingers, a light or bulky body, slim or heavy legs and, often, just plain individual cussedness, will affect the way he holds and handles a rifle and influence the shooting results.

Every rifleman must determine how he can get consistent *hits* with his rifle. He does this by zeroing, which means finding the sight setting (deflection and elevation) with which he can *hit* the center of a target at a particular range.

Here is the way a beginner should zero his rifle if he can choose a day when there is no wind blowing:

Place the center index line on the rear sight on the center calibration of the windage gage. Set the sight for the average elevation for the range you are firing (12 clicks for 200 yards).

Fire three or more shots from the prone position, with a sandbag rest, using this sight setting, and observe where the center of this shot group appears on the target. Change the elevation and deflection so that your next shot group, fired at the same aiming point, will center on or near the center of the bull.

By determining the distance from the **CENTER OF THE SHOT GROUP** to the center of the

bull's-eye the shooter can compute the number of clicks necessary to center his next three-round group. **MAKE FULL CORRECTIONS.** Don't creep the elevation and windage into the center of the bull.

Do this a third time, if necessary, to center a group in the bull. The sight setting you have when you make this group is the zero for your rifle at the selected range. Zero your rifle for all ranges.

A more experienced rifleman, one who can call his shots well, can zero his rifle more quickly and more economically this way:

Follow the procedure as for the first method, but fire single shots instead of several at a time. Make sight changes between each shot to bring the next hit nearer the center of the bull. The sight setting that produces a center bull is the zero for the selected range. This method is wasteful and time-consuming when used by any but very experienced riflemen.

It is not often possible to select a windless day for zeroing, so the rifleman will have to take wind strength into account and correct for it with a deflection setting. He can do this easily if he knows the wind formula:

Range in hundreds of yards times wind velocity, divided by 10, equals the number of clicks in deflection for a full-value wind. The short form of this formula is—

$$\frac{R \times V}{10} = \text{Number of clicks for full-value wind.}$$

(Use half the number of clicks for a half-value wind.)

The value of wind is gaged by its direction. The wind affects the course of a bullet most when it blows directly across the path of flight. Winds that blow across the path of flight at an angle have less effect, and head and tail winds do not affect the bullet's flight at all.

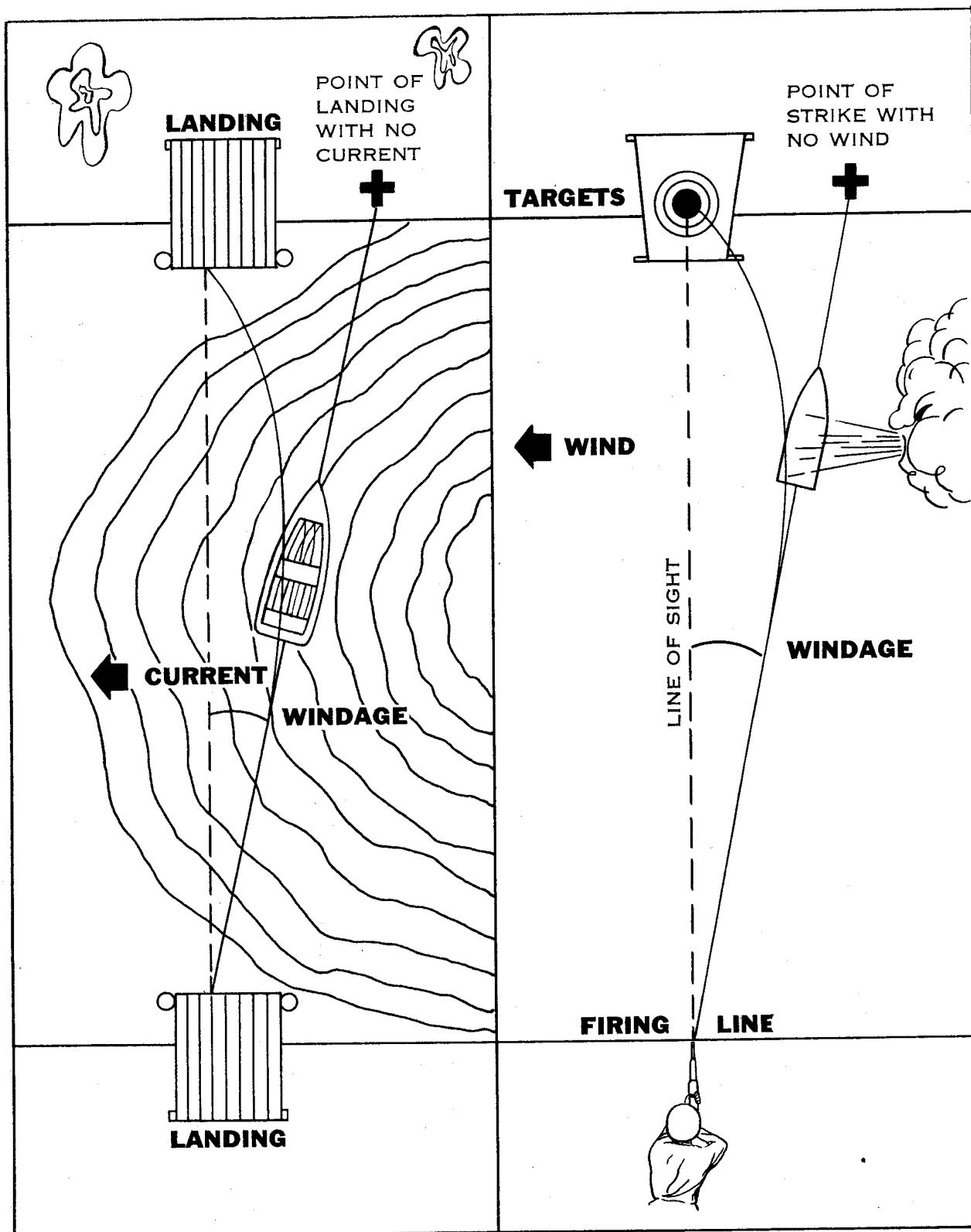


Figure 42.

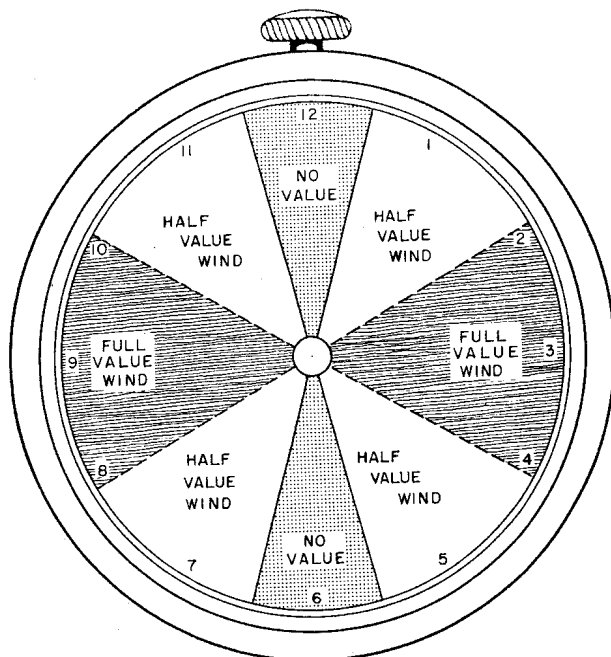


Figure 43. Clock system of wind values.

Winds that blow from 8 to 10 o'clock and from 2 to 4 o'clock are full-value winds; those from 1, 5, 7, and 11 o'clock are half-value winds; and those from 12 and 6 o'clock are no-value winds (fig. 43).

Before firing for zero, the rifleman estimates the wind speed and determines its value, works out the wind formula, and places the resulting number of clicks deflection on the windage gage. He then fires his shot groups, changing his sight setting between each group as described in the first method until he obtains a group centered in the bull. The elevation setting that gives him the center bull group is the zero elevation, but the deflection he has is not the zero setting. He must subtract from the deflection setting the number of clicks he put on the windage gage to compensate for the wind. The remainder is the *zero* deflection setting. (**CAUTION:** When the strength of the wind changes while firing for zero, the rifleman may have to change the setting on his windage gage accordingly. In this case he must be sure to subtract the *final* number of clicks he used to compensate for the wind.)

The zero is an individual matter between the shooter and his rifle. Other riflemen may or may not get the same good results with it since eyesight varies among individuals.

#### THE IMPORTANCE OF ZEROING

A soldier with a rifle zeroed for 200 yards may be able to put a tight little shot group in the mid-

dle of a bull at 200 yards or a bullet in an enemy soldier's belly at the same range in combat. If he uses that same sight setting on the range for a target at 500 yards, he might barely put his same tight little group in the bottom of the target frame, some distance to the right or left of his aiming point, depending on the direction and force of the wind. Look at figure 44. In combat, where his target would be an enemy soldier, the bullet would hit somewhere to the right or left front of the enemy, but not close enough even to throw dirt in his eyes and spoil his aim in case he intends to shoot back (fig. 45). Neither of these hits would be *hits that count*.

When a rifleman fails to zero his rifle for all known-distance target firing and to use the right zero, he is guilty of a dangerous form of laziness. You, as an instructor, cannot tolerate this laziness. You must insist on *hits that count* on the range so your men will get *hits that count* in combat.

Remember that in a battle action, enemy soldiers are not going to stand still at exactly a 200-, 300-, or 500-yard range and wait to be shot at. The men you train must be so certain that there is only one correct way to get *hits that count* that they will automatically jack up their rear sight or knock it down to the *nearest correct zero* when engaging a target, unless the time and situation will not permit.

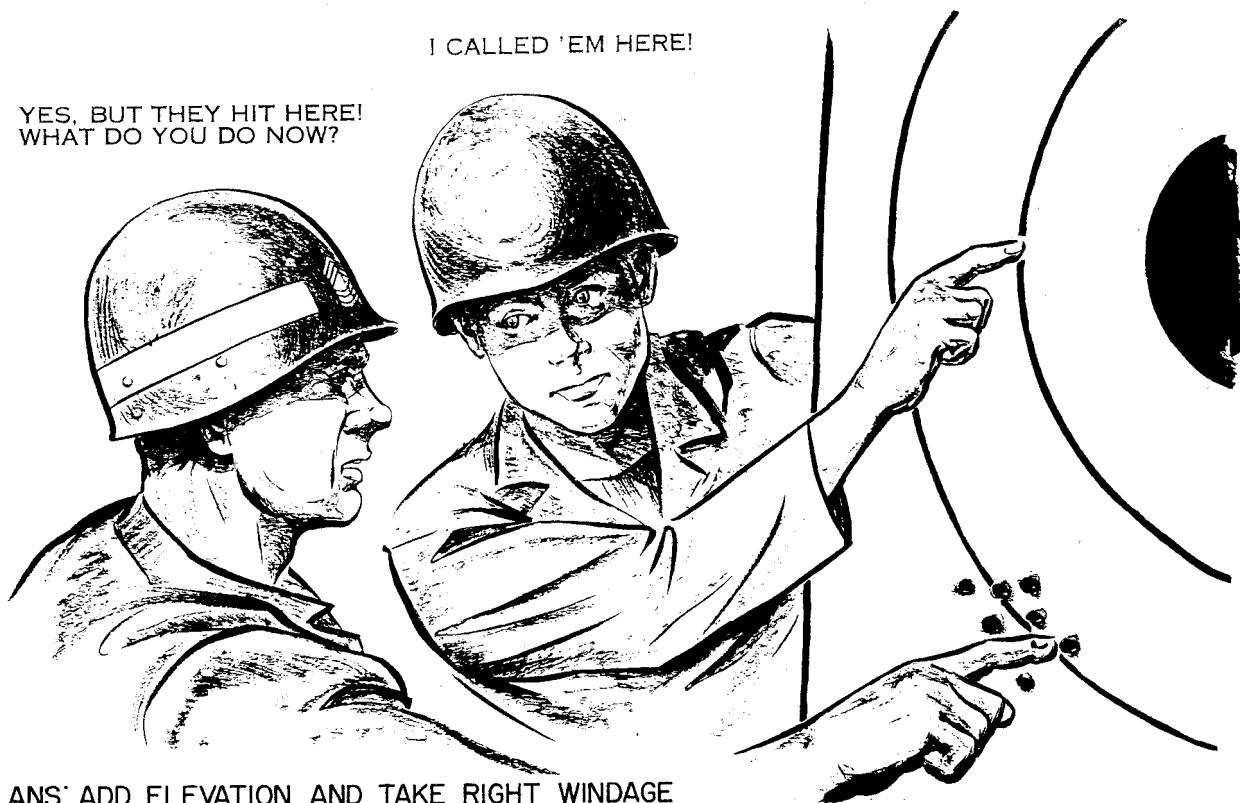
The soldier who can fire a group the size of a No. 10 can at 500 yards, but whose group does not strike the object at which he is aiming, is not worth a whoop on the range or in combat until he learns to zero his piece.

In many cases riflemen are reluctant to move their sights when they are hitting close to the bull, although they could easily center their groups. One such shooter even went so far as to carry his reluctance to the National Matches at Camp Perry, Ohio. He was firing for the first time at 1,000 yards in an individual match where no coaching was allowed. The team coach, however, watched his men from behind the line, and this man's performance made him boil with helpless rage. After 2 sighters and 20 shots for record, this contestant came off the line with a satisfied smirk on his face and 22 consecutive two's, all of which landed in one of the 2- by 6-foot rectangles that are on each side of the "C" target used!

"Hell!" said the coach. "You sure did fire up a lot of ammunition for nothing."

I CALLED 'EM HERE!

YES, BUT THEY HIT HERE!  
WHAT DO YOU DO NOW?



ANS: ADD ELEVATION AND TAKE RIGHT WINDAGE

Figure 44. You can't call 'em right without a zero.

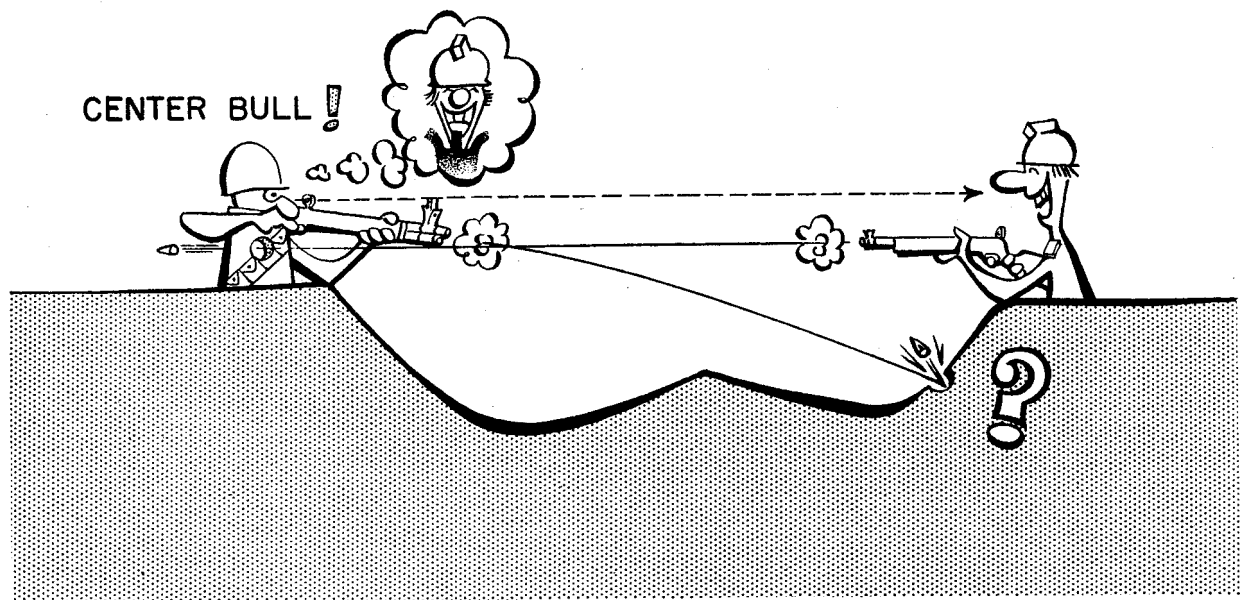


Figure 45. Sight picture is no good without a zero.



The contestant's smirk faded like a cheap pair of socks in the washing machine. "But, coach," he began, "I—"

The coach interrupted him. "If you had taken the trouble to change your sights," he growled, "you could have made a few bulls."

"But, coach," argued the contestant, "I couldn't risk moving the sights at a time like that, when I was already hitting the target plenty good!"

This is not the attitude that will make a firer get scores on the range and *hits that count* in battle. When you come up against a man with

this attitude, you can usually straighten him out at the beginning with a simple argument. Talk to him this way—

"Soldier, suppose you are a good enough shot to make a shot group the size of your hand at 500 yards. Now, when you fire that tight little shot group, suppose it hits the target frame. What score would you get?"

The soldier's answer is, of course, "Nothing."

Go on with your argument. "OK, suppose by moving the sights on your rifle you put the group in the middle of the bull. What will you score?" He should say "Possible" or "All bulls" or something meaning the same thing. In most cases you will prove your point and can count on the man in the future to move his sights without urging, so that **THE CENTER OF THE SHOT GROUP regardless of size IS IN THE CENTER OF THE TARGET.**

#### VISION

Ordinarily, when a man zeroes his rifle at 200 yards, and sets the range drum on his sight, he can get his range setting for a zero at 300 or 500 yards simply by turning the elevating knob to the "300" or "500" calibration. However, some men, particularly nearsighted ones, may get a higher shot group as the range increases. This seems to be the result of blurred distant vision. If you notice that a man's shot groups are going astray, you should check his sight picture. Have him place his rifle on two sandbags and align the sights on a bull's-eye. The picture that looks like a 6 o'clock hold to him may appear to be a third of the way into the bull to you.

Since the man cannot use your eyes, it will do no good for you to correct the sight picture. The man must either have glasses fitted or he must adjust his sights to compensate for the error in his sight picture.

#### LIGHT

If you notice that some of your riflemen have wandering zeroes from day to day, check their firing data cards and try to determine if they have a trend up or down that is related to light. Some men, usually dark-eyed people, have a tendency to shoot low on bright days and higher on dark days. This is because their eyes are over-sensitive to light. On bright days, when it would seem that everything is so clearly lighted that sighting error would be reduced to nothing, these men with light-sensitive eyes will have to squint

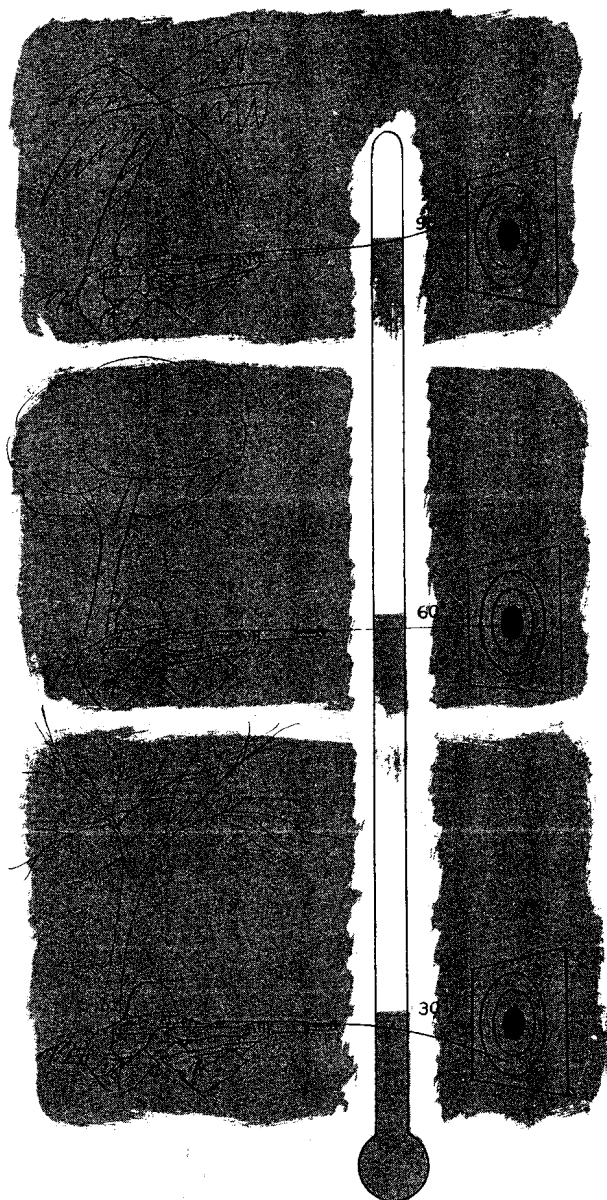


Figure 46.

to cut out some of the brilliance. The consequent blur, caused by filtering the light through their eyelashes, coarsens their sight picture and causes low shot groups. Other shooters will be found who shoot low on dark days because they cannot see to hold quite as closely then as they can when the light is bright.

#### TEMPERATURE

Heat can affect scores and give the effect of straying zeroes by causing firer fatigue. More often the trouble is superheated ammunition intermixed with rounds of normal temperature. Powder does not burn as readily or with as much force when cold as it does when hot. Consequently, a cold round will strike lower on the target than a hot round with the same sight setting and hold.

Since greater ammunition temperatures mean greater pressures and higher points of impact, you must see that the rounds used on your ranges are covered from the direct rays of the sun and kept as near air temperatures as possible. This can be done by covering the cases, cans, or stacks with canvas or burlap. You may even construct a box to keep the ammunition in by putting hinges on an ammunition case, and boring holes one-half

inch or larger in the top, bottom, and sides to allow ventilation.

When your riflemen are on the line, they can protect their ammunition from the sun by tucking the rounds under the corner of a ground cloth, a handkerchief, or the firing data card, by leaving each round or clip in the cartridge belt until need. One **CAUTION**: do not lay around on the ground or allow them to become dirty or gritty. This wears out more chambers and bores than 5,000 rounds of shooting and causes faulty extraction as well. Grit imbedded in the chamber must be worn out—it cannot be removed by cleaning.

A rifle zeroed in hot weather must be rezeroed in cold weather if your riflemen are to *hit* what they shoot at. The rule has been established that for each 10° F. temperature change, the strike of the bullet is moved up or down one click. The direction of change in elevation on the rifle is opposite the direction of temperature change. If the mercury goes up, the rear sight goes down.

The table shown below illustrates what happens when a rifle zeroed at 60° F. is fired at other temperatures and ranges.

Temperature		200 yards setting	300 yards setting	500 yards setting
90°-----	Rifle shoots-----	3 clicks high-----	3 clicks high-----	3 clicks high.
60°-----	(Normal zero)-----	12 clicks-----	15 clicks-----	22 clicks.
30°-----	Rifle shoots-----	3 clicks low-----	3 clicks low-----	3 clicks low.
0°-----	Rifle shoots-----	6 clicks low-----	6 clicks low-----	6 clicks low.

#### WIND

The rifleman must learn to make deflection settings on the rear sight to correct for the lateral drift of the bullet in full-value and half-value winds. This is called taking windage. To make these settings, the rear sight must be moved into the wind; that is, if the wind is blowing from 3 o'clock, the rear sight is moved toward 3 o'clock—to the right. If the wind is blowing from 9 o'clock, move the rear sight toward 9 o'clock—to the left.

#### FIRING DATA CARD

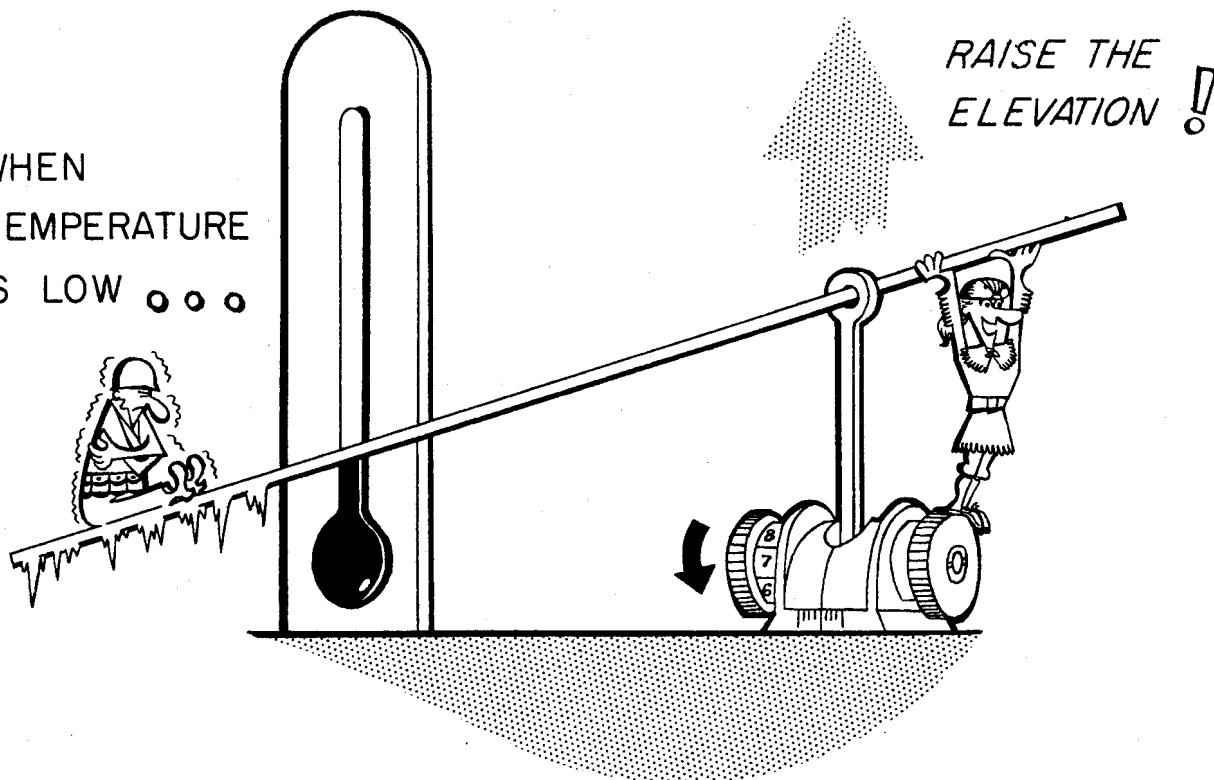
Each firer should keep a detailed record of his performance with his rifle. He keeps this record on a firing data card (fig. 48).

Note that the firing data card has a small box for recording the zero settings at 200, 300, and 500 yards. This box should be filled in, then cut out and shellacked to the inside of the trigger housing floor plate.

Do not let your men feel that the firing data card is a millstone hung around their necks. Make them realize that a properly kept firing data card gives them a pictorial record of their shot groups that they can study to analyze their weaknesses in aiming, holding, and squeezing the trigger. It can fix in their minds the necessary corrections for wind, distance, temperature, light, and other conditions that determine whether they will *hit* their target or miss it.

Properly kept firing data cards will allow you to make constructive criticism of the shooter's efforts during or after firing. Even old competitive shots have had the experience of firing a number of shots and plotting them in their score book without noticing that they have lost points because the shot groups were not centered in the bull. A good coach or instructor will look at the firing

WHEN  
TEMPERATURE  
IS LOW ○○○



WHEN  
TEMPERATURE  
IS HIGH ○○○

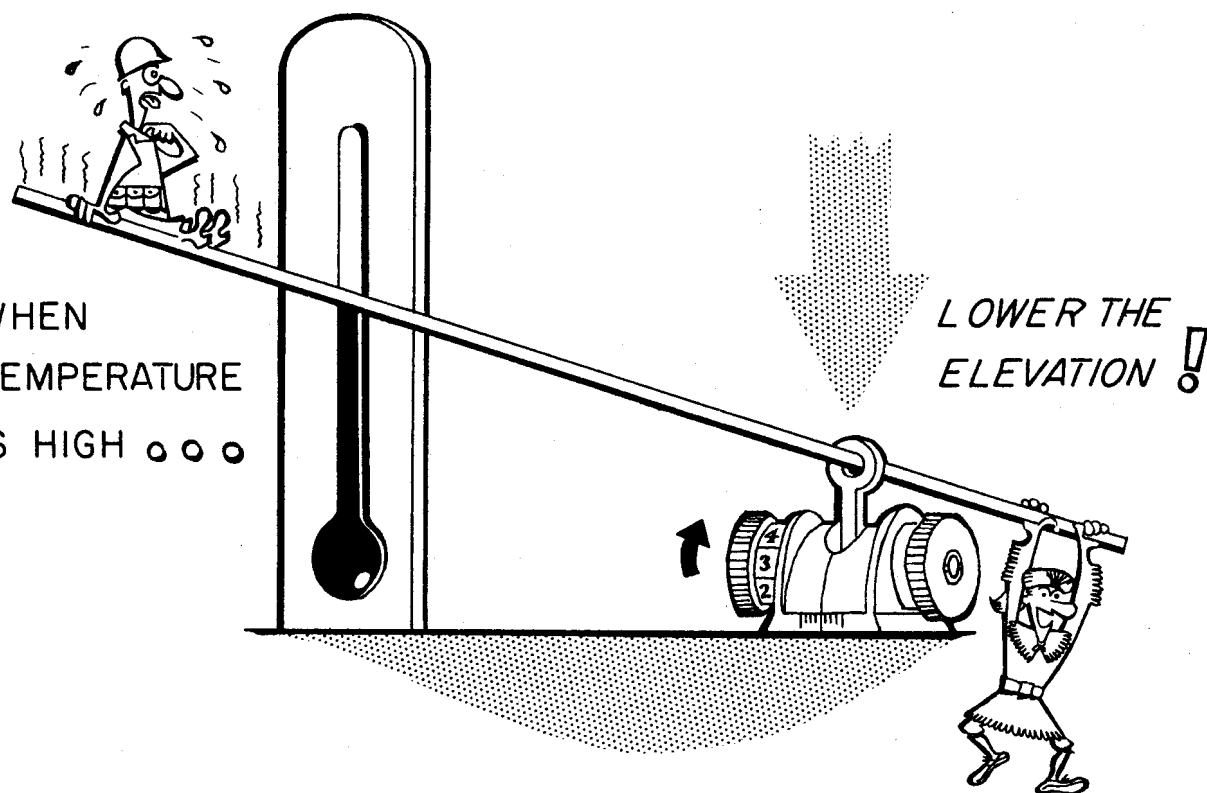


Figure 47.

# FIRING DATA CARD-RIFLE

ONE (1) CLICK OF ELEVATION, OR WINDAGE, MOVES THE STRIKE OF THE BULLET ONE (1) INCH FOR EACH 100 YDS OF RANGE

RANGE			HOUR			COMPUTATION RV 10		
POSITION			DATE			12 9 3 6		
			WEATHER					
			LIGHT			WIND VEL		
NO	EL	WIND	CALL TARGET			HIT TARGET		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
			USE NUMBERS TO DESIGNATE LOCATION					
			ZERO			WIND TOTAL SCORE		

RANGE			HOUR			COMPUTATION		
POSITION			DATE			12 9 3 6		
			WEATHER					
			LIGHT			WIND VEL		
NO	EL	WIND	CALL TARGET			HIT TARGET		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
			USE NUMBERS TO DESIGNATE LOCATION					
			ZERO			WIND TOTAL SCORE		

RANGE			HOUR			COMPUTATION		
POSITION			DATE			12 9 3 6		
			WEATHER					
			LIGHT			WIND VEL		
NO	EL	WIND	CALL TARGET			HIT TARGET		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
			USE NUMBERS TO DESIGNATE LOCATION					
			ZERO			WIND TOTAL SCORE		

BATTLE SIGHT		EL		WINDAGE	
TRANSITION TABLE IX					
200		300		400	

TRANSITION TABLE X					
(1)	(2)	(3)	(4)	(5)	(6)
LANE NO	NO OF HITS	SCORE OF HITS (5 X COL 2)	NUMBER OF UNEXPENDED ROUNDS	SCORE OF UNEXPENDED ROUNDS (5 X COL 4)	SCORE (COL 3 + COL 5)
1					
2					
3					
4					
5					

RANGE			HOUR			COMPUTATION		
POSITION			DATE			12 9 3 6		
			WEATHER					
			LIGHT			WIND VEL		
NO	EL	WIND	CALL TARGET			HIT TARGET		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
			USE NUMBERS TO DESIGNATE LOCATION					
			ZERO			WIND TOTAL SCORE		

6					
7					
8					
9					
10					

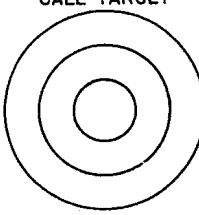
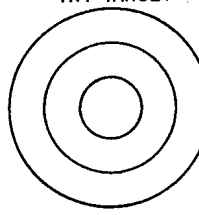
TOTAL					
TRANSITION TABLE XI					
TOTAL					

NAME OF FIRER, RANK		RIFLE NO. ZERO	
ASN ORGANIZATION		RANGE ELEVATION WIND	
ZERO RECORD CARD		200	
CUT OUT AND SHELLAC IN THE TRIGGER HOUSING FLOOR PLATE		300	
		500	

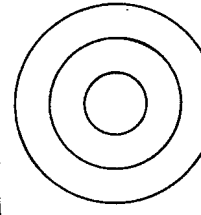
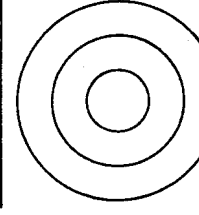
Figure 48.

# FIRING DATA CARD-RIFLE

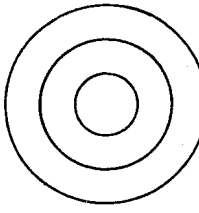
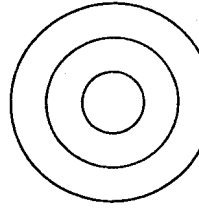
ONE (1) CLICK OF ELEVATION, OR WINDAGE, MOVES THE STRIKE OF THE BULLET ONE (1) INCH FOR EACH 100 YDS. OF RANGE

RANGE			HOUR DATE			COMPUTATION 12 9 3 6		
POSITION			WEATHER			WIND VEL		
LIGHT			CALL TARGET			HIT TARGET		
NO	EL	WIND						
1								
2								
3								
4								
5								
6								
7								
8								
9								
10			USE NUMBERS TO DESIGNATE LOCATION ZERO _____ WIND _____ TOTAL SCORE _____					

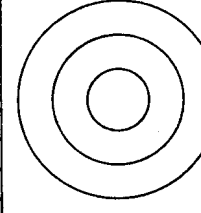
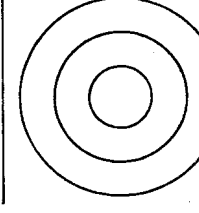
--- FOLD ---

RANGE			HOUR DATE			COMPUTATION 12 9 3 6		
POSITION			WEATHER			WIND VEL		
LIGHT			CALL TARGET			HIT TARGET		
NO	EL	WIND						
1								
2								
3								
4								
5								
6								
7								
8								
9								
10			USE NUMBERS TO DESIGNATE LOCATION ZERO _____ WIND _____ TOTAL SCORE _____					

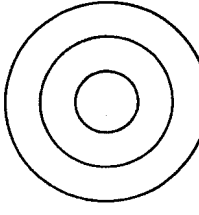
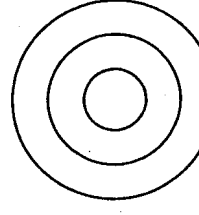
--- FOLD ---

RANGE			HOUR DATE			COMPUTATION 12 9 3 6		
POSITION			WEATHER			WIND VEL		
LIGHT			CALL TARGET			HIT TARGET		
NO	EL	WIND						
1								
2								
3								
4								
5								
6								
7								
8								
9								
10			USE NUMBERS TO DESIGNATE LOCATION ZERO EL _____ WIND _____ TOTAL SCORE _____					

--- FOLD ---

RANGE			HOUR DATE			COMPUTATION 12 9 3 6		
POSITION			WEATHER			WIND VEL		
LIGHT			CALL TARGET			HIT TARGET		
NO	EL	WIND						
1								
2								
3								
4								
5								
6								
7								
8								
9								
10			USE NUMBERS TO DESIGNATE LOCATION ZERO _____ WIND _____ TOTAL SCORE _____					

--- FOLD ---

RANGE			HOUR DATE			COMPUTATION 12 9 3 6		
POSITION			WEATHER			WIND VEL		
LIGHT			CALL TARGET			HIT TARGET		
NO	EL	WIND						
1								
2								
3								
4								
5								
6								
7								
8								
9								
10			USE NUMBERS TO DESIGNATE LOCATION ZERO _____ WIND _____ TOTAL SCORE _____					

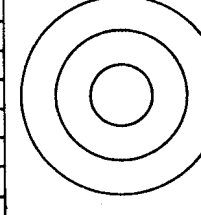
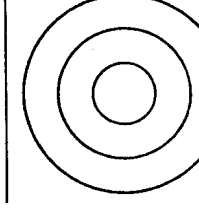
RANGE			HOUR DATE			COMPUTATION 12 9 3 6		
POSITION			WEATHER			WIND VEL		
LIGHT			CALL TARGET			HIT TARGET		
NO	EL	WIND						
1								
2								
3								
4								
5								
6								
7								
8								
9								
10			USE NUMBERS TO DESIGNATE LOCATION ZERO _____ WIND _____ TOTAL SCORE _____					

Figure 48—Continued.

data cards often enough to spot these losing groups immediately—and will do something about it.

#### RANGE AND COMBAT OBJECTIVES

The difference in range and combat targets seems to be a big one. The fact that one is lifeless and the other not only alive, but human, makes them seem poles apart. Nevertheless, there should be no quibble over range and combat objectives. The object on the range is to get as many *hits* in the bull's-eye as possible. The object in combat is to get as many *hits* on the enemy as possible. The soldier can see that if he learns on the range what keeps him from getting *hits* and how to overcome it, he can use this know-how in combat and get *hits* on the enemy. A bullet drops at the same rate in combat as it does at the training camp. The 9 o'clock, 10-mile-per-hour wind, blows a bullet off course 9 inches at 300 yards on the battlefield, just as it does on the range. A rifleman should learn so well how to get *hits* on the known distance range that he will not throw away the book in combat.

When a man can zero his rifle properly and can be convinced of the value of the zero, he has a

known point from which he can work out the problems in hold-off and lead which are inevitable in combat. In determining zeros, the factors discussed in this chapter must be taken into account both to *explain* and to *adjust* the zeros. Remember that often the difference between a bolo and a sharpshooter is a few clicks of elevation or windage, or both.

#### SANDBAG ZEROING

Many new men get poor zeros because of unsteady firing positions. An unsteady position causes a tendency to snap shoot when the sights pass the bull's-eye. This leads to flinching (jerk-ing or bucking), and a rifleman cannot get a zero when he flinches. These men must use a sandbag to help steady the firing position. This will help them to get a tight shot group which can be moved into the center of the target by proper adjustment of the rear sights.

However, the sandbag is not a rifle rest. It is just a foundation for the left arm in the prone position. Remember our discussion on uniformity of holding? If the sandbag, instead of the left hand, supports the rifle, a different set of condi-

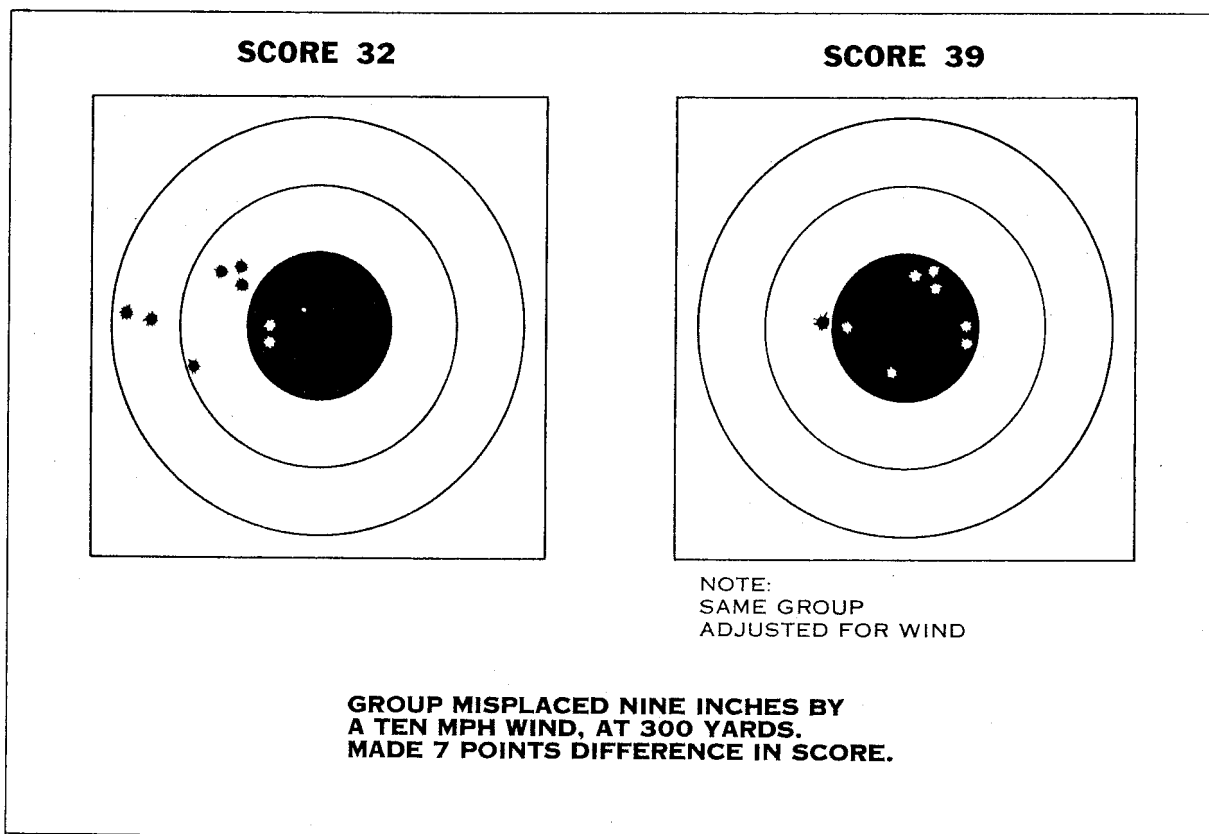


Figure 49.

tions will be introduced which will result in a false zero. First of all, resting the rifle in the left hand gives a flexible, cushiony mount, whereas, a sandbag is a solid and inflexible mount. The sandbag used as a rifle rest gives a different kind of support which will cause the center of impact of a shot group to be different from that which is fired when the sandbag is not used as a rest. To get a usable zero, use the sandbag only to steady the forearm and hand that steadies the rifle.

A man with a short arm will need a low sandbag adjustment. You may have to bleed some of the sand forward and bend the neck of the bag over to give his left hand a firm support. A long-armed man may need a sandbag which is nearly full, if he is to get a good support for his left hand.

Fill the sandbag full enough to allow for proper adjustment in height for riflemen of different builds. It should then be tied near the top to leave free space within the bag for adjustment. The seam or "ears" edge of the sandbag should be toward the firer to give the arm support from elbow to knuckles.

#### SHORTCUT TO ETERNITY

In August 1775, the London Chronicle published a letter from the Bradford brothers, printers of Philadelphia. Part of it read as follows: "This province has raised: 1,000 riflemen, the worst of whom will put a ball into a man's head at a distance of 150 to 200 yards; therefore advise your officers who shall hereafter come out to America to settle their affairs in England before their departure."

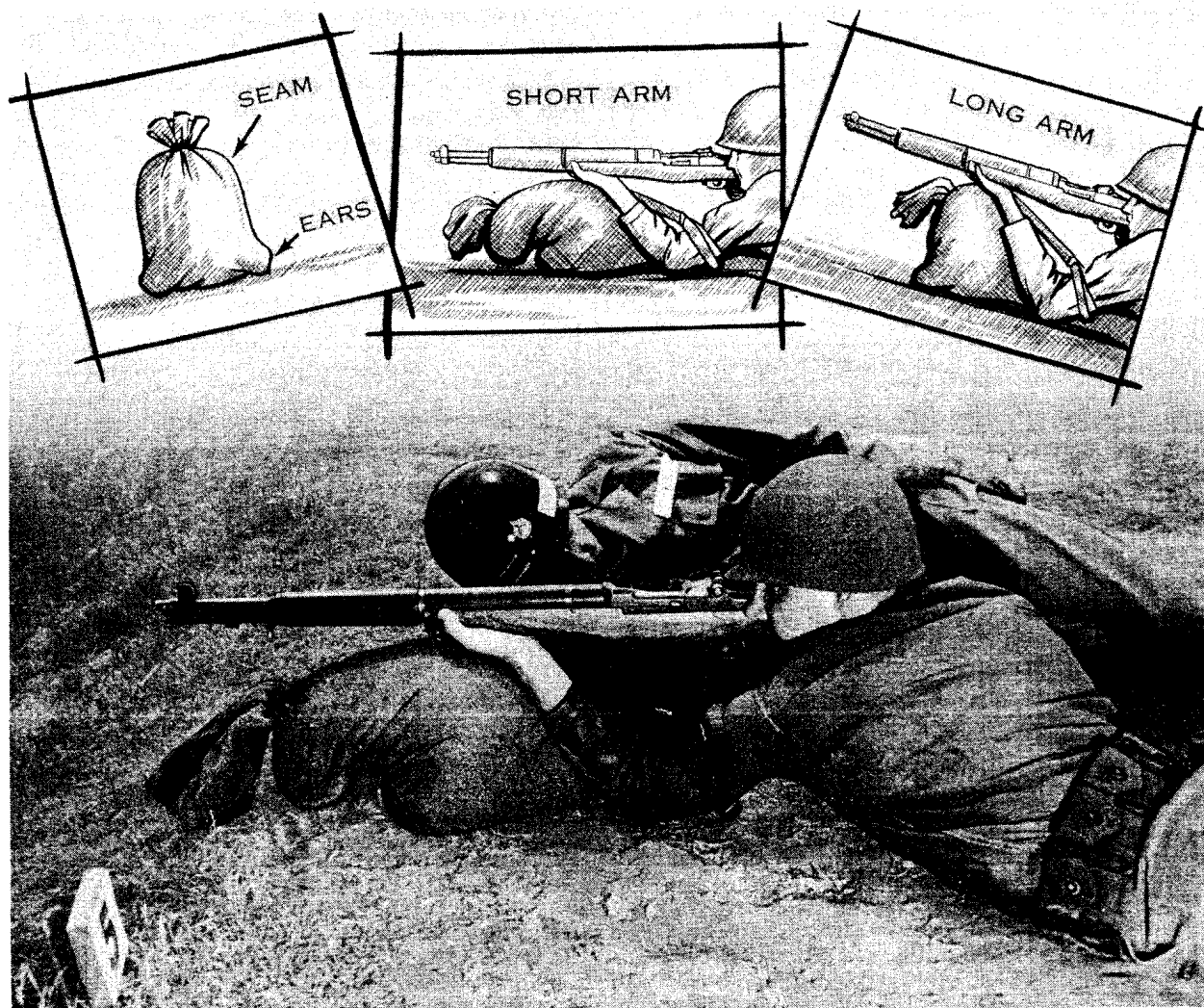


Figure 50. Sandbag used as support for long- and short-armed men.



## CHAPTER 8

# SUSTAINED FIRE



There is no basic difference in sustained and slow fire. Accuracy in both requires each shot to be properly aimed, held steady, and squeezed through. Sustained fire is nothing more than a series of slow fire shots fired with a short time allowance for each. Time is saved and speed is gained by blending the elements of good position, sighting and aiming, trigger squeeze, controlled breathing, and reloading into a smoothly coordinated rhythm or cadence.

Every child has to learn to crawl before he walks, to walk before he runs, and has to run a lot before he is really good at it.

The rifleman must go through the same gradual stages before he can fire fast and accurately. He must practice correctly in slow fire until his actions become so automatic that they are as natural as breathing or walking. Then he can build speed with accuracy by tying together in coordinated rhythm all the things he has learned.

Sustained fire is a test of good shooting habits. A sustained fire target that looks like it has been fired at with a shotgun is visual evidence that basic principles of marksmanship have been violated. It is much better to fire 10 well-aimed, steadily held and squeezed shots which kill 6 and wound 4 enemy soldiers, than to fire 50 times and miss with each round.

### SPEED AND ACCURACY

Speed, accuracy, and coordination are developed through the practice of three sustained fire exercises. In the first exercise, the rifleman learns a cadence with which he can develop a steady rhythm of movement in firing a series of shots. Here the coach strikes the operating rod handle to the rear on the command BOLT. If the firer finds that his sights do not drop back under the bull after each shot, his position must be checked. When the basic error is found, it is corrected.

The second exercise trains the shooter to take positions easily and rapidly, fire a simulated round, reload, adjust his position, and simulate firing eight more rounds in a total of 50 seconds. Each round is aimed, held steady, and squeezed. The firer breathes after each shot. The coach operates the bolt and watches the firer's recovery, position, trigger performance, and breathing. On-the-spot corrections are most essential. At first, the exercise may be extended to 60 seconds so the shooter may have a little time to correct errors as they are noted.

Dummy rounds are used in the third exercise to give the shooter practice in loading and reloading smoothly and without waste motion. The same procedure is followed as in simulating the firing of the second sustained fire exercise. The exercise is completed in 50 seconds.

Instructors and coaches should work toward creating a calm atmosphere in the instruction. This invites relaxation in the shooters instead of hurry-up tension. Don't go to a more advanced step of instruction and don't increase speed until all previous steps have been mastered.

### SUSTAINED FIRE PROCEDURE

**YOU HAVEN'T TIME TO HURRY!** You will understand why if you compare an experienced shooter with a recruit going through his first sustained fire run. By the time the command **READY ON THE FIRING LINE** is given, the recruit is as taut as a snare drum and has gone into a trembling crouch that agonizes spectators as well as himself. With **TARGETS UP**, the beginner goes wild. He hits the ground with a bounce, snaps off a shot as if he were trying to win a prize for shooting first. He shakily reloads and fires again. His rifle is way off the target because of poor position; so he wrestles it back and snatches off the remaining rounds when

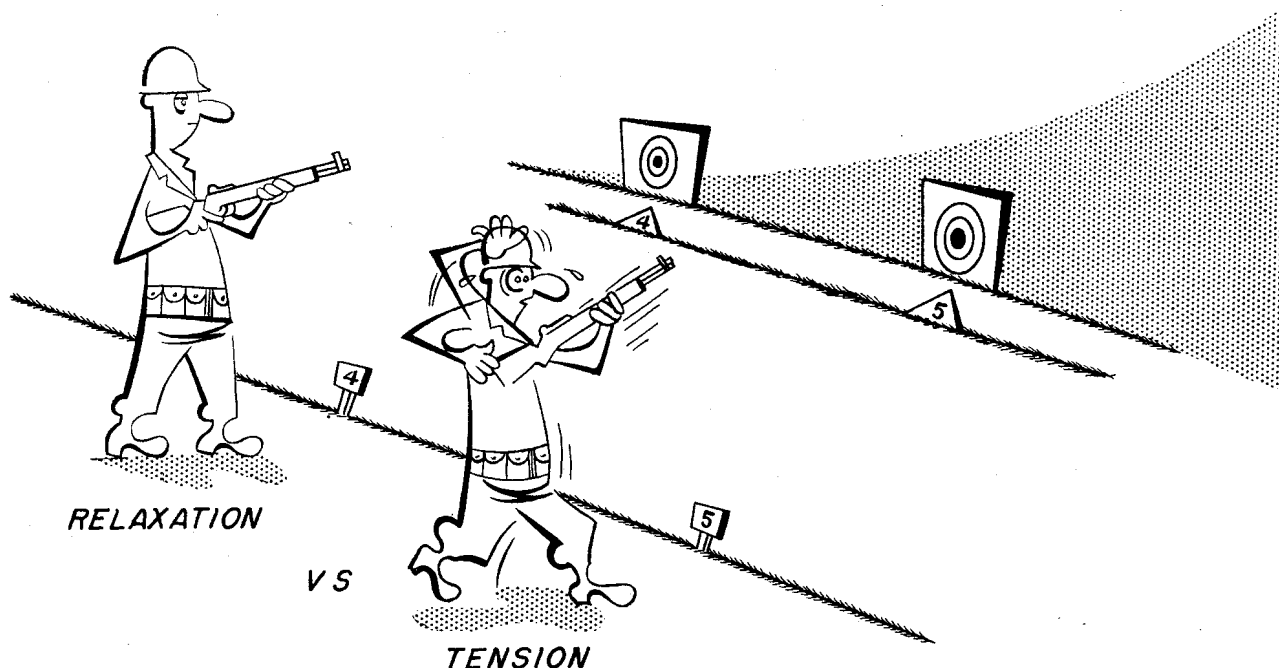


Figure 51.

the sights wander by the bull. The chances are that the recruit will have been finished 20 seconds before he notices that the experienced shot is still firing in clocklike rhythm. The experienced shooter finishes about 2 seconds before the targets go down.

What has the good shot been doing all that time? Let's go back to the initial position. The older hand took plenty of time to check both the basic position and position adjustment. He marked the position and got out of it so that he could get into it easily at the start of the sustained run. He stood watching his target with a relaxed and easy air. When the targets came up, he sank confidently into position and *made sure his position was right* before he aimed and squeezed off the first shot. By this time the recruit had fired, reloaded, and fired again. Reloading for the seasoned rifleman was smooth and quick. Most of the 10 seconds allowed for reloading were used to **ADJUST THE POSITION FROM WHICH HE WAS TO FIRE HIS REMAINING ROUNDS.** Quickly checking the position by breathing, he aimed and squeezed off each remaining round, breathing after each shot to relax himself and to clear his eyes.

The recruit had plenty of speed—he would have been No. 1 if shooting against time, but his target looked like a Swiss cheese—holes all over. The “possible” that the trained shooter fired was

a testimony of the good shooting habits that he had formed and was practicing.

#### COACH'S DUTIES

Training in sustained fire is a real challenge to the coach. He must continue the development of good shooting habits in the firer while teaching him to work them into a smooth rhythm of motion. The coach must use his powers of observation to the last degree to detect all of the basic errors which may occur during the firing of a sustained exercise.

When the coach operates the bolt during dry line practice, he gives the rifleman a chance to detect the errors in his position which prevent quick verticle recovery after firing a simulated shot. Make the shooter pay close attention to movements of the front sight in dry shooting, and check the shot group center in wet runs. They will furnish clues which will point to basic errors and their causes.

Consider some of the common errors. You have a rifleman who shot V fives in slow fire with three clicks right windage. Under the same wind and light conditions, he fired a 9 o'clock shot group in sustained fire. His trouble may have been bucking, which means he threw his right shoulder into the rifle butt to “help off” the rounds. This knocked the muzzle to the left.

The man who jerks the trigger in sustained runs will generally get 3 o'clock shot groups. Jerking

the trigger will pull the muzzle and, consequently, the groups, to the right. Some firers will shoot under the same conditions in slow and sustained fire, getting good shots in the black in slow but 6 o'clock shot groups in sustained. These shooters may be getting a big line of white in their sight picture between the top of the front sight and the bottom of the bull because, in their haste, they fail to check the sight picture and follow through. Another cause for a low shot group may be traced to a loose sling. With a loose sling, the firer, to complete the sight picture, may be holding the rifle up with his left hand. When he fires and relaxes, the muzzle drops down to its normal position, ruining the shot. With good follow through this might not happen, but poor positions and poor follow through go hand in hand.

#### INITIAL POSITION

Before firing a sustained run, the rifleman has time to take a firing position and make adjustments that will aline his sights naturally on the target. He should check his position for solidness and vertical recovery by having someone operate the bolt for him. Once he has adjusted his position properly, he should mark it and carefully get out of it so that he can take the *same* position when he begins firing.

#### TAKING POSITIONS RAPIDLY

We will not review here the well-established methods for taking positions rapidly. However, there is an easier and surer way of getting into the sitting position quickly than that normally taught.

The manual tells the rifleman to take an initial sitting position and aim at the target. He then gets up out of position, keeping his feet in place. To take the same position on the command *TARGETS UP*, the shooter sits down with his right hand out behind to break the fall, and then skids his buttocks back until he finds the same position that he was in initially. Some men have difficulty in finding their initial position.

Have them try this method. After adjusting the initial position, have them mark their heel placement, then draw their feet back and cross their legs close to the body. Next, they stand straight up cross-legged and, keeping one foot in place, uncross the other leg. They are now standing naturally and relaxed (fig. 55). (To assume the sitting position, the procedure is reversed.)

When the command *READY ON THE FIR-*

*ING LINE* is given, they cross the leg back over the one they kept in place. When the targets start up, they sit straight down cross-legged. Now they uncross their legs and place their heels back into the spots marked. This will usually put them back into the same initial position.

#### RELOADING

Reloading should be practiced until the firer can draw a clip of ammunition from the cartridge belt, load it in the receiver, close the bolt, and get back in position. Normally, this can be done in 4 seconds in the prone position and 5 seconds in the sitting position. This will leave 6 seconds in prone and 5 seconds in sitting to check and adjust to a good position and fire a shot. This is his last chance to see if his position is correct before firing the remaining rounds in the clip. By having a correct position at this point, he can concentrate on aiming and squeezing each shot when firing the string.

#### FIRING THE STRING

Don't let your men waste their breath! Show them how to put their breath to work for them. They must breathe *BEFORE* firing the first round and *AFTER* each shot. Before the first shot, they inhale, exhale, and take in just enough air to *complete the sight picture*. Then they take up the trigger slack and squeeze. After each shot is fired, they exhale, then take in just enough air to *complete the sight picture for the next shot*.

Again they take up the slack and squeeze. This way they kill two birds with one stone. Controlled breathing relaxes them, clears their eyes, and sets up the complete sight picture, for, by taking in the right amount of breath, the bull and front sight are alined.

Trigger squeeze in sustained fire is somewhat faster than in slow fire and the trigger finger is always kept in contact with the trigger while firing a series of shots, but the squeeze is still applied *STRAIGHT TO THE REAR*. The squeeze goes all the way back and then the trigger finger is relaxed, allowing it to move forward only far enough for the trigger lugs to reengage the hammer hooks. The firer is now ready to begin the squeeze for the next shot. Don't let him quit on the followthrough. Make him take up the slack with a heavy initial pressure and squeeze all the way back. Many shooters get in a hurry and forget the followthrough in sustained fire. They squeeze until they expect the hammer to fall and

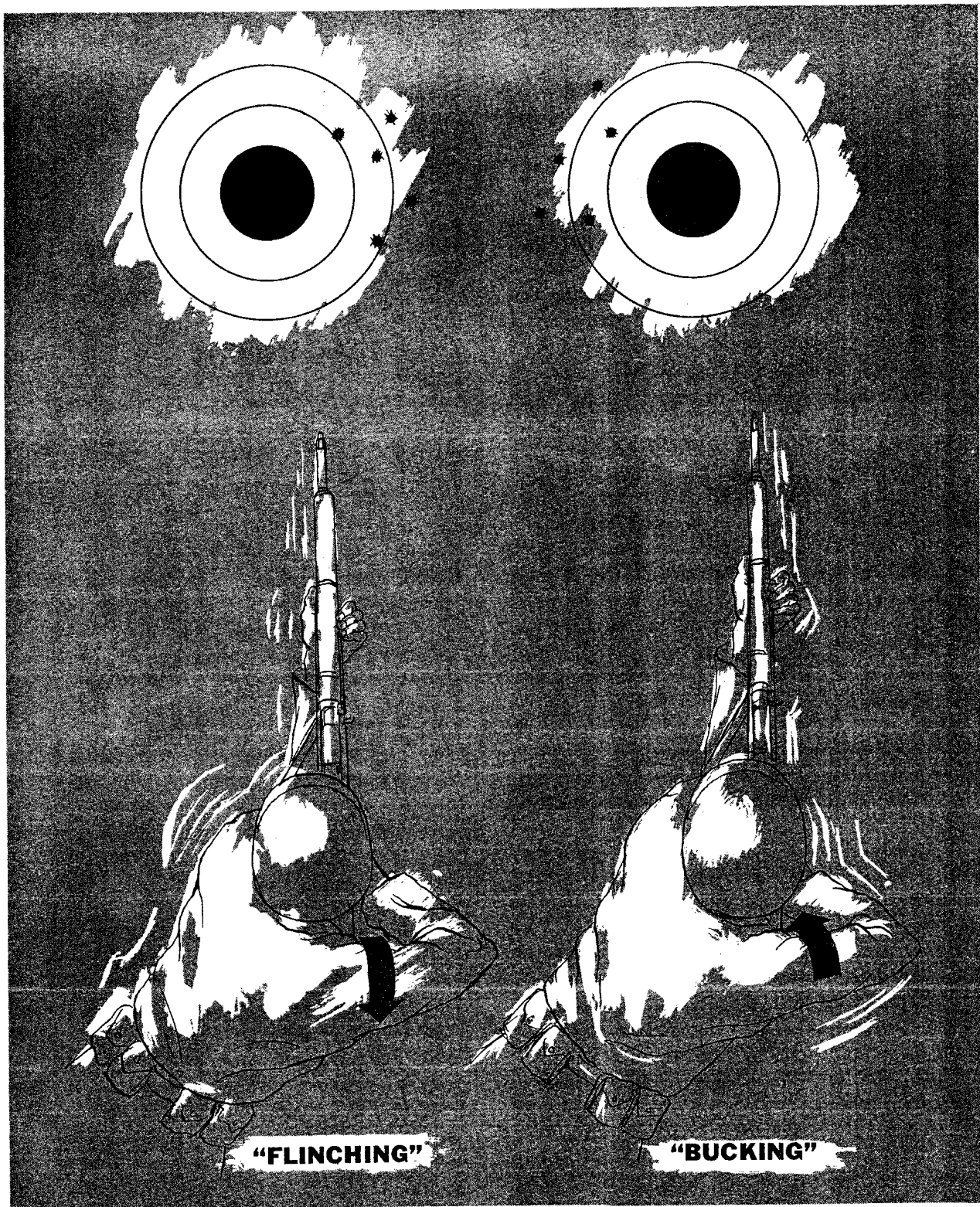


Figure 52.

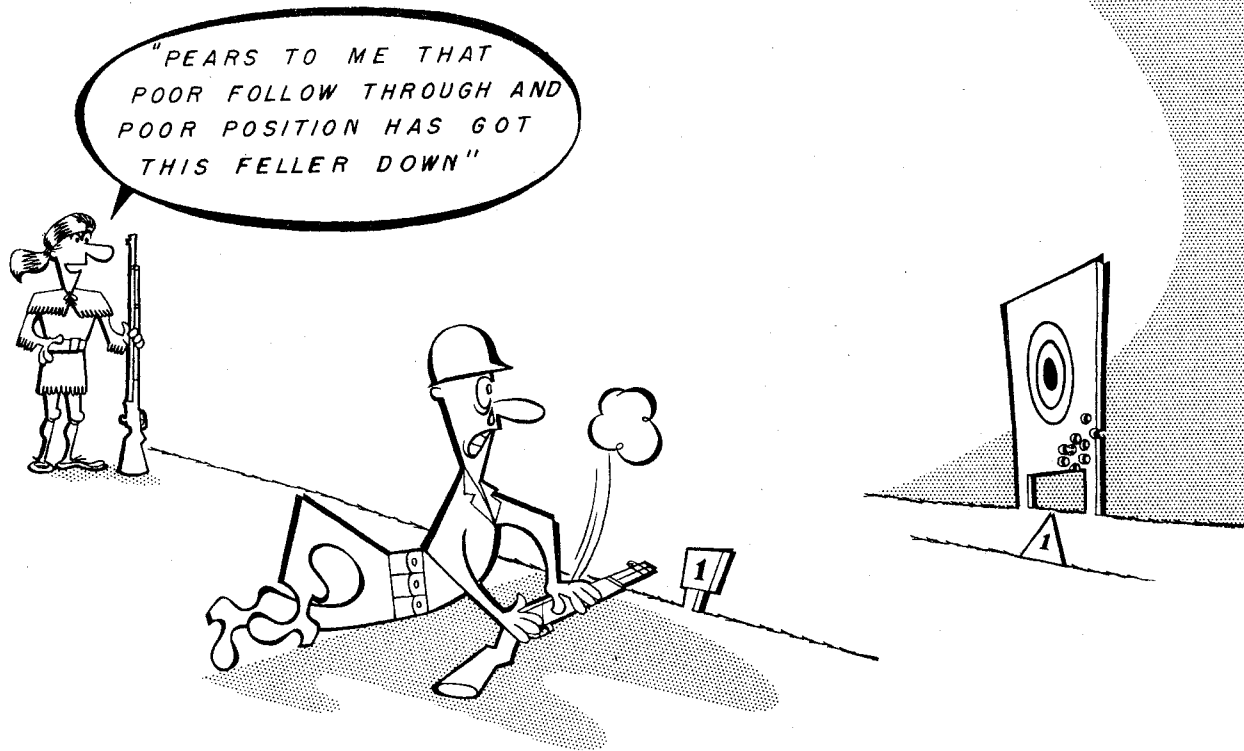


Figure 53.

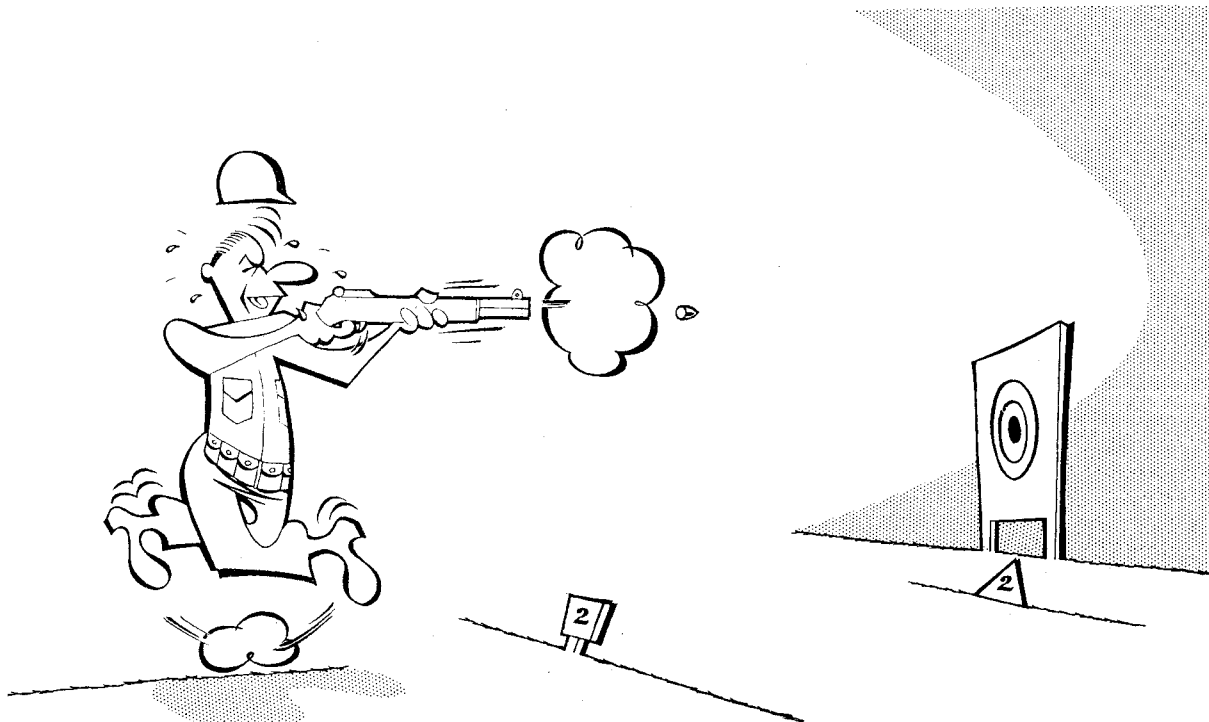


Figure 54.



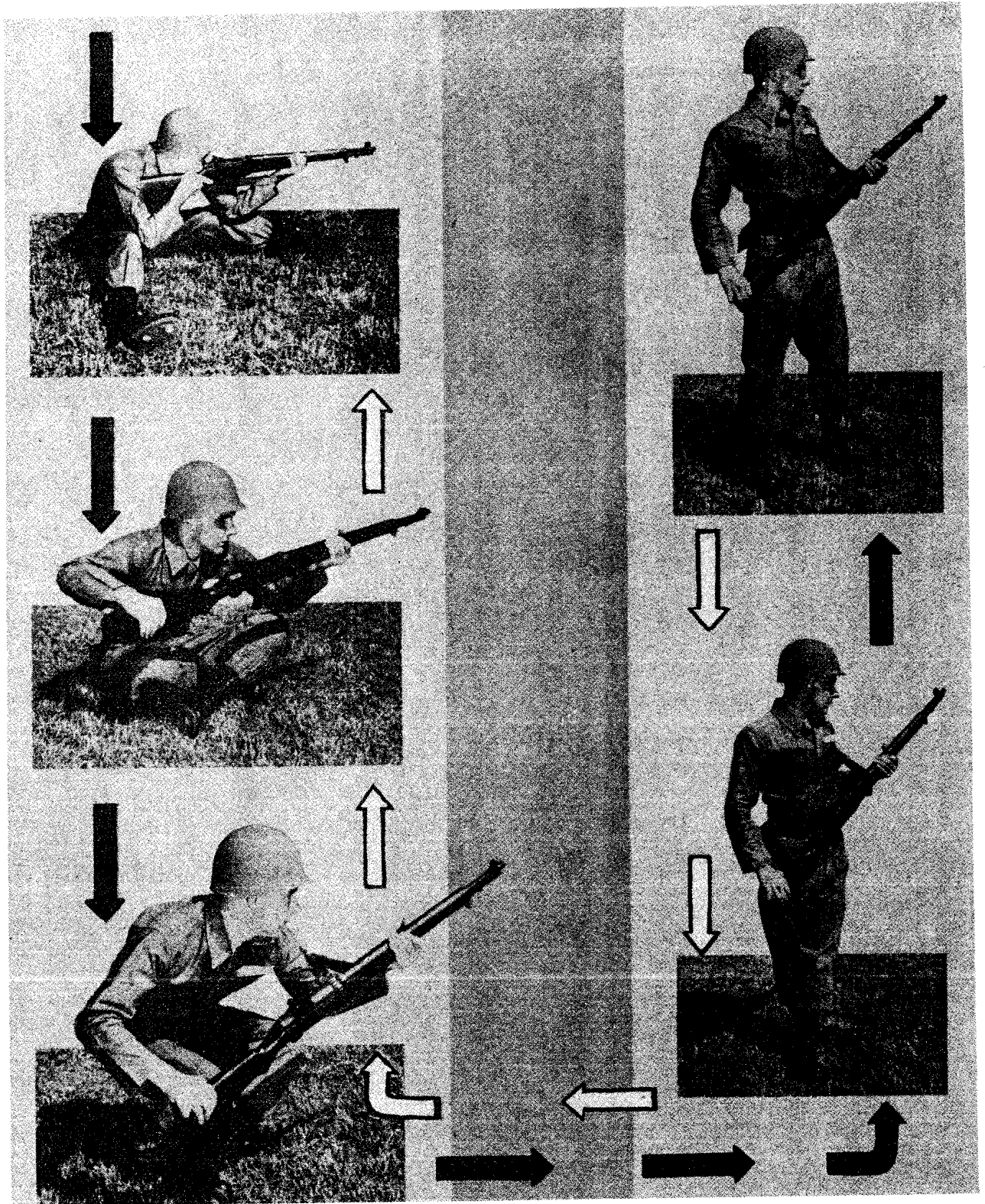
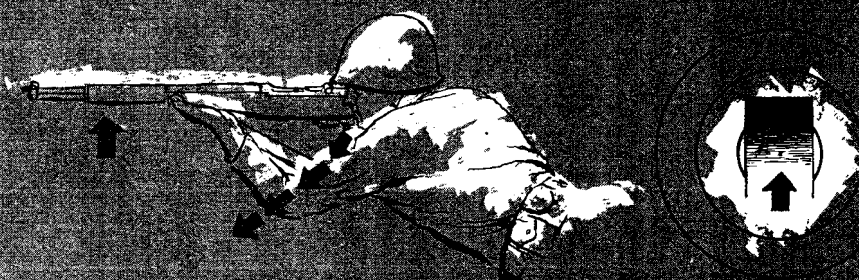


Figure 55. To rise cross-legged from the sitting position follow the solid arrows. To assume the sitting position from standing, follow the outlined arrows.

BREATHING TO COMPLETE SIGHT PICTURE



BREATH IS TAKEN - MUZZLE IS LOWERED



BREATH IS LET OUT - MUZZLE IS RAISED



TAKE IN JUST ENOUGH AIR TO COMPLETE  
SIGHT PICTURE. LOCK YOUR THROAT. TAKE  
UP SLACK AND SQUEEZE.

Figure 56.



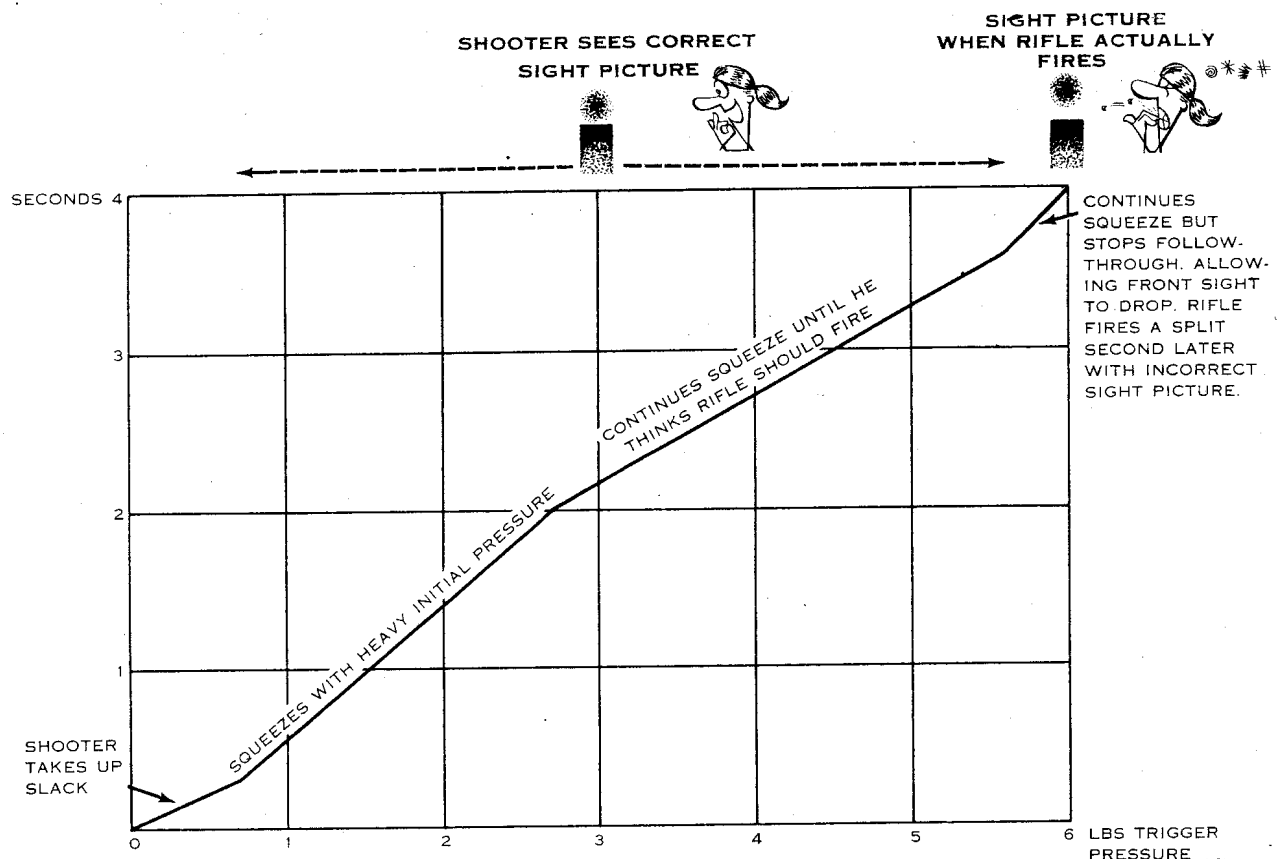


Figure 57.

then relax their concentration. At this point they may have a good sight picture. When the hammer doesn't fall, their finger takes care of the rest and "taps one off." The sight picture that they remember is not the sight picture that exists at the time the round is fired for they didn't "see" the true picture. By quitting the followthrough, relaxation and bad position cause the muzzle to move away from the bull. The shot will be a puzzle to them and they can't call it.

Make them concentrate on breathing to complete the sight picture and trigger squeeze. Help them develop a cadence and you will help them to increase their speed. Make them maintain the same position during the entire string. The man who shifts his position during firing, not only loses time but sacrifices all chances of obtaining *hits that count*.

#### COMMANDS

Every instructor and coach should do his best to help the shooter relax and concentrate on accuracy rather than speed. About 95 percent of all shooters fire too fast. How many times have you

been on a range and heard the man on the control tower and coaches on the line chatter along with such aimless instructions as "Watch your targets now; get ready; the flag is waving"? Use only the necessary commands listed in the field manual to control the firing line and alert the shooter. You don't have to keep needling him to get ready and watch his target, etc. If you do, both of you had better go back to the prep field and review basic range procedures. Your job is to help the shooter *relax* and make every move count.

A calm, unflustered range officer who knows his business, and coaches cut from the same bolt of cloth, contribute mightily to successful range firing. Make your remarks purposeful, and if you are running the range, give range commands only, unless you have something to say that is of interest to all. In that case, stop all activity, demand and get their attention, tell them, and shut up.

Range officers and coaches who display nervousness and uncertainty, bad temper, and lack of patience with their riflemen, will wreck the chances for almost all firers to do their best. On record

days men are keyed up anyway and it sometimes takes only a little thing to make them blow their tops.

### HABIT AND PRACTICE

In learning to swim, you were taught the importance of your kick, stroke, and breathing. You practiced them separately until you could do them well without thinking. Then you put them together and practiced swimming slowly and smoothly until all movements became a matter of habit. When these good habits had been formed, you could begin to concentrate on developing a rhythm which, with practice, would increase your speed and distance.

The rifleman must practice doing all the things he has been taught in slow fire until they become *reflex* actions. Once these good shooting habits have been formed, they can be practiced in cadence until a rhythm is developed which will increase the speed of firing without loss of accuracy.

### SHOOTING SCHOOLS

The known-distance range is employed as a means of grading the rifleman. Each man fires from the same positions at the same ranges. Known distance firing is not an *end*, but is a *means* to an end—combat efficiency. Positions taught on the KD range stress bone support and relaxation. The shooter who completes known distance firing with an expert, sharpshooter, or marksman classification has graduated from the *high school* of shooting.

The transition range is an introduction to combat firing techniques. It is the freshman course in the *college* of combat firing. At this stage of training, the rifleman learns to select modified positions from which moving and stationary targets must be hit at different distances. He must estimate ranges, get into firing positions with little delay, move rapidly from stations under a time

limit and still get *hits*. Any position which produces consistent *hits* is a good one. It will be found that the underlying principles of a KD position and a combat type position which get *hits* are the same.

The *college course* in shooting is combat firing. The same attention to sight picture, sight adjustment, wind, and trigger squeeze will get *hits* in KD or combat. The training of a rifleman should include as much combat type firing as possible. Many different kinds of combat firing ranges can be used. In one type, a unit sets up a defensive position. When the defensive position has been developed to its fullest extent, silhouette targets are placed in the foxholes. The unit then attacks the defensive position from the opposite direction. The number of *hits* on the silhouette targets are checked against the number of rounds fired to determine the effectiveness of fire. The big point is that a rifleman must be trained to use his KD skill to get *hits* on indistinct targets at unknown ranges and under the most adverse conditions possible.

Good training in *all* of these schools of shooting is essential if we are to produce crack riflemen upon whom our Nation can depend in wartime.

### THE GOPHER OF BLOODY NOSE RIDGE

On the island of Peleliu in the South Pacific, the Marines ran into a hill honeycombed with Jap caves and tunnels. Worse, there was a certain Son of Nippon who would pop out from his hole long enough to fire one shot and then disappear. While Marine marksmen hunted him, he would appear at another hole and fire again. One by one, 87 Marines were cut down, each with a perfectly aimed bullet through the head.

Eventually, Marine sharpshooters were placed where they could cover all the holes on the ridge. When the Jap next popped out, another perfectly aimed bullet made another neat hole through another head. This time the Gopher lay still.



## CHAPTER 9 CONCLUSIONS

### HITS ARE IMPORTANT

This text represents an effort to explain *why* certain things should be done to guarantee good shooting. We have tried to show the instructor and coach how to recognize the symptoms of certain bad habits and how to cure them. We have stressed that good shooting is obtained by forming good shooting habits. The soldier must act instinctively and correctly in combat if he is to stay alive and help keep his buddies alive.

**THERE IS NO REASON FOR HAVING A SOLDIER BUT TO SHOOT AND KILL THE ENEMY.** There is, or should be, no more important weapon to the soldier than his rifle. It is his mainstay in combat. If the soldier firing a

shoulder weapon gets *hits that count*, he is the master of every living thing he sees within 500 yards in any direction.

### THE ROAD TO COMBAT EFFECTIVENESS

There is no easy road to combat effectiveness for the rifleman; no short cut. Many people are looking for such a highway and the idea is fine, but until the new route is surveyed, graded, and paved, we must teach the riflemen the tried and true principles that pay off with *hits*. Good riflemen are produced through good instruction and coaching, a lot of practice time, intelligent use of ammunition, and regular application of the principles learned.

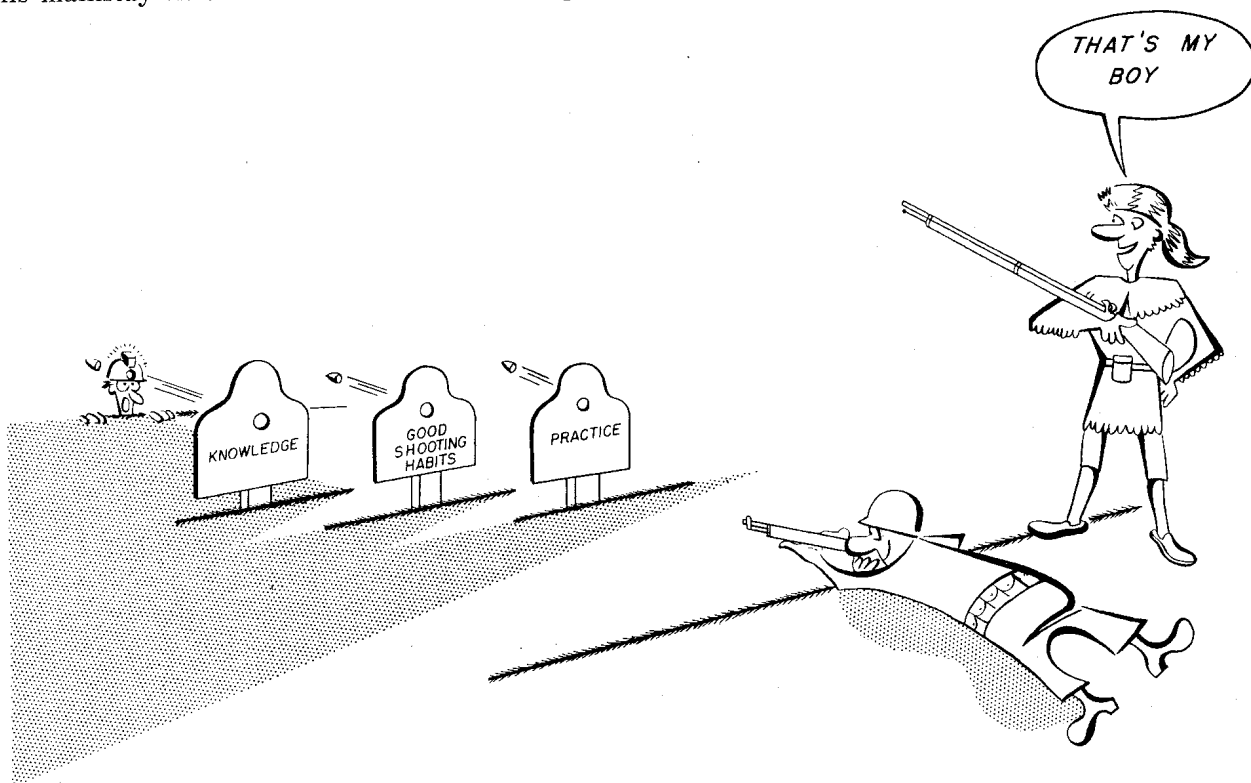


Figure 58.

## CONTROL, KD, COMBAT

Battle veterans believe that there is a correlation between the ability of a rifleman to control his fear and nervous reactions in firing competitive matches and doing the same thing in combat situations. A top competitive shot or combat rifleman must be able to so control his mind and muscles that his sight alinement, trigger squeeze, follow through (all necessary measures for getting *hits*) are good enough to wound or kill the enemy, or get 5's and 4's on the range. The bolo who can't control this fear on the range, where the targets don't shoot back, certainly cannot be expected to become a cool character in battle and make every shot count.

### INSTRUCTOR AND COACH

The instructor and coach must believe in the importance of their job: to produce highly qualified riflemen. (We mean *qualified for combat*.)

The services place heavy dependence upon experienced officers and enlisted men who have the ability to train a constant flow of new men in correct marksmanship principles so that these men become good shots themselves and can, with proper experience and training, later become the coaches

and instructors for yet a newer group of men.

Coaches cannot be discounted in this effort. The best instructor in the Army can tell, show, and require a class to do all the things constituting rifle marksmanship, but if the supervision and correction of the instruction is faulty because the coaches do not take a personal interest in their students, the whole structure will fall apart. The knowledge, experience, and desire to help must be evident in the coach before the student will really believe that it is intended that he learn to shoot the rifle. If this is lacking, the recruit will interpret it as an acknowledgement that riflemen have no importance. Yet nothing can be more important to that man in combat than the ability to *hit* what he wants to *hit*.

### COMBAT QUALIFICATION

The Army in general and the Infantry in particular must be capable of producing a larger number of *hits* per round fired than it has in the past. If competent riflemen are well distributed throughout combat units, it is certain that a greater effectiveness will be noted. Mass attacks are based on the belief that if enough men are thrown into an assault, the enemy cannot kill

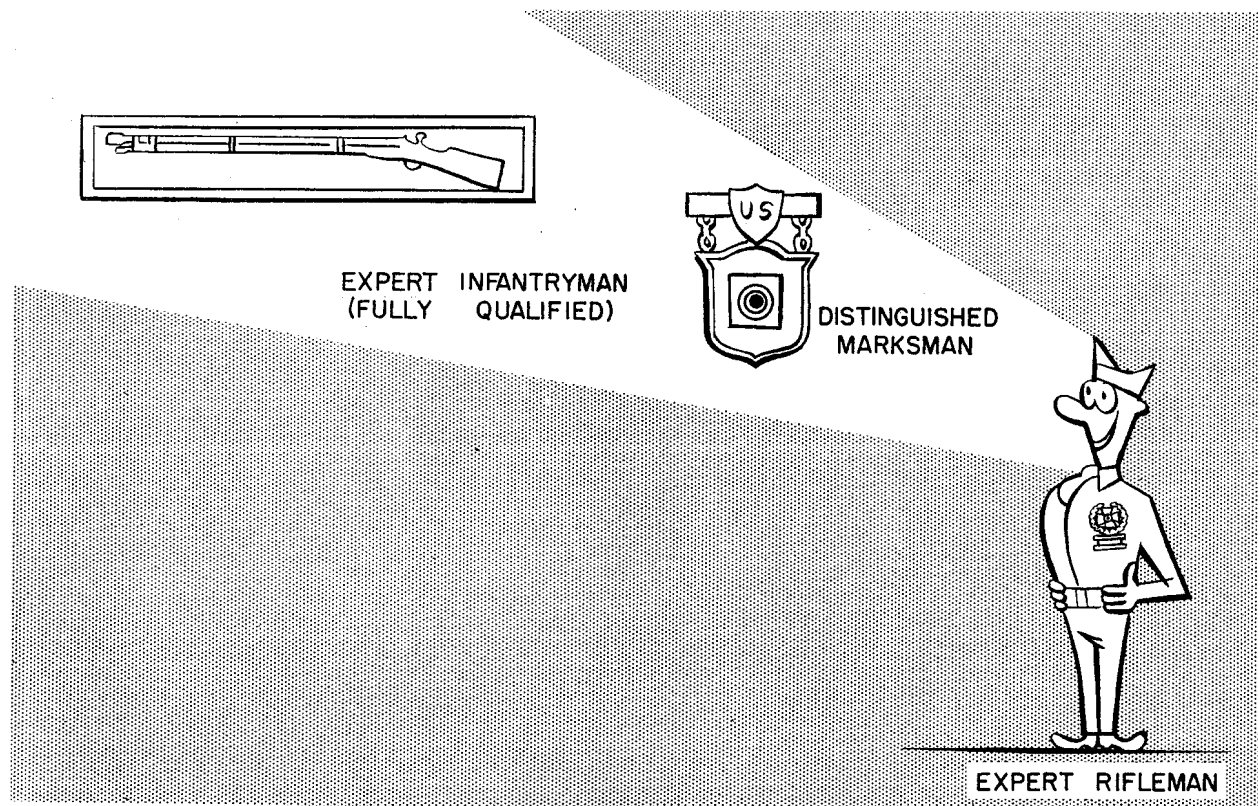


Figure 59.

enough of them to blunt the attack and some will get through to the position. These human-wave attacks are setups for the cool, accurate rifleman, as well as the machine gunner and mortarman. An army that can make *hits that count* is assured of victory.

[AG 353.15 (14 Jan 55)]

Most Americans acknowledge that they rely tremendously on the Infantryman's feet—feet that must take him over mountains, through jungles and swamps, across open fields, and along paved roads. Strangely enough, these Americans have never realized that they depend to an equal degree on the rifleman's educated trigger finger.

*Brig. Gen. Carl F. Fritzsche*

BY ORDER OF THE SECRETARY OF THE ARMY:

OFFICIAL:

JOHN A. KLEIN,  
*Major General, United States Army,  
The Adjutant General.*

M. B. RIDGWAY,  
*General, United States Army,  
Chief of Staff.*

DISTRIBUTION:

Gen Staff, DA (1)  
Tec Svc, DA (1)  
Adm & Tec Svc Bd (2)  
CONARC (30)  
Army AA Comd (2)  
Os Maj Comd (20)  
OS Base Comd (10)  
Log Comd (5)  
MDW (10)  
Armies (25)  
Corps (10)  
Div (5)  
Brig (3)  
Engr Gp (5)  
Inf Regt (5)

Armored Regt (5)  
CML Bn (5)  
Engr Bn (5)  
FA Bn (5)  
Inf Bn (5)  
Ord Bn (5)  
QM Bn (5)  
Sig Bn (5)  
Armord Bn (5)  
MP Bn (5)  
AAA Bn (5)  
Engr Co (15)  
Inf Co (15)  
Armord Co (15)  
Abn Co (15)

FA Co (10)  
AAA Co (10)  
CML Co (5)  
Ord Co (5)  
QM Co (5)  
Sig Co (5)  
MP Co (5)  
Gen & Br Svc Sch (5)  
except  
Inf Sch (50)  
USMA (50)  
PMST ROTC Units (2)  
Mil Msn (1)  
ARMA (1)

NG: Same as Active Army.

USAR: Same as Active Army.

Unless otherwise noted, distribution applies to ConUS and overseas.

For explanation of abbreviations used, see SR 320-50-1.